

FIG. 1

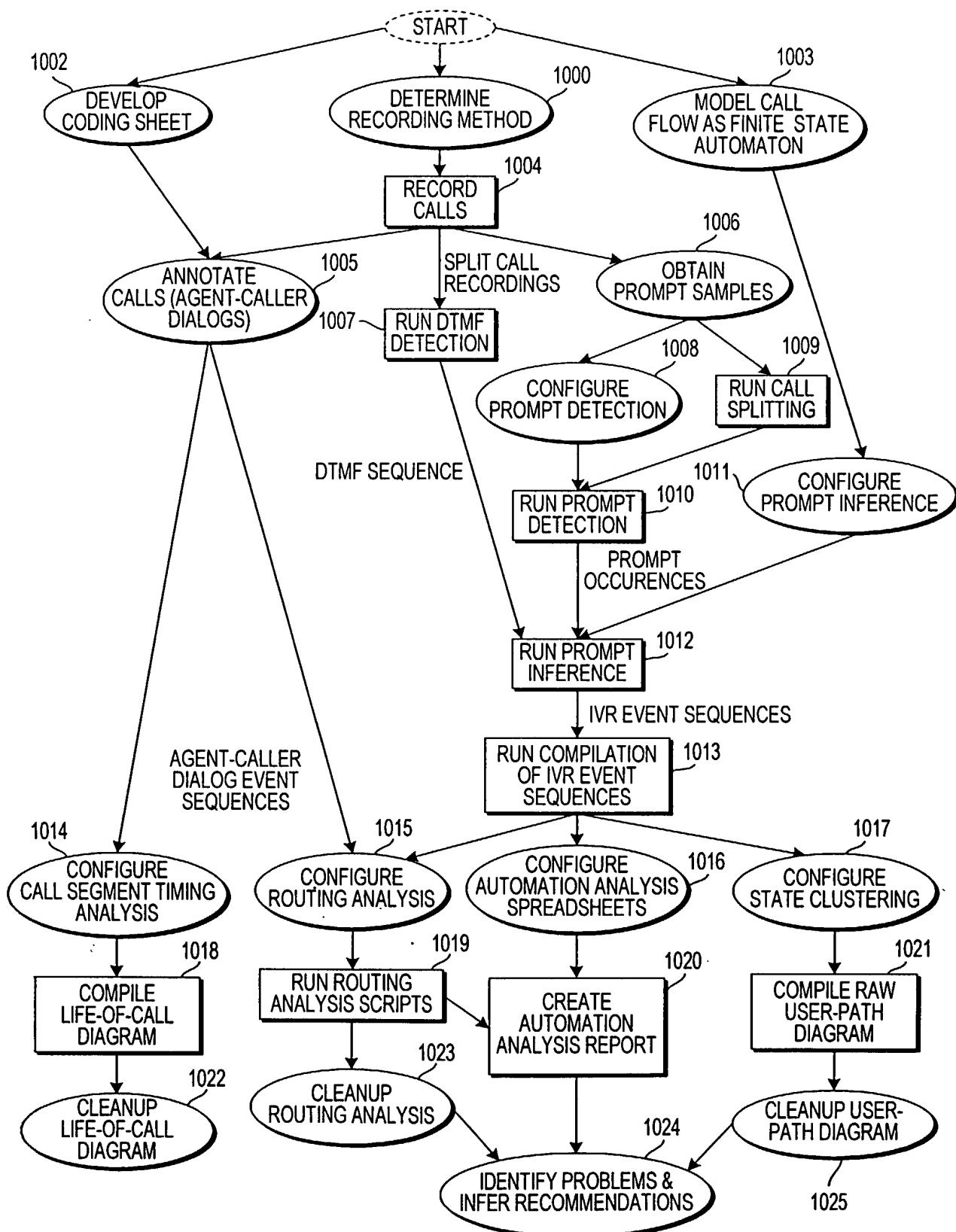


FIG. 1A

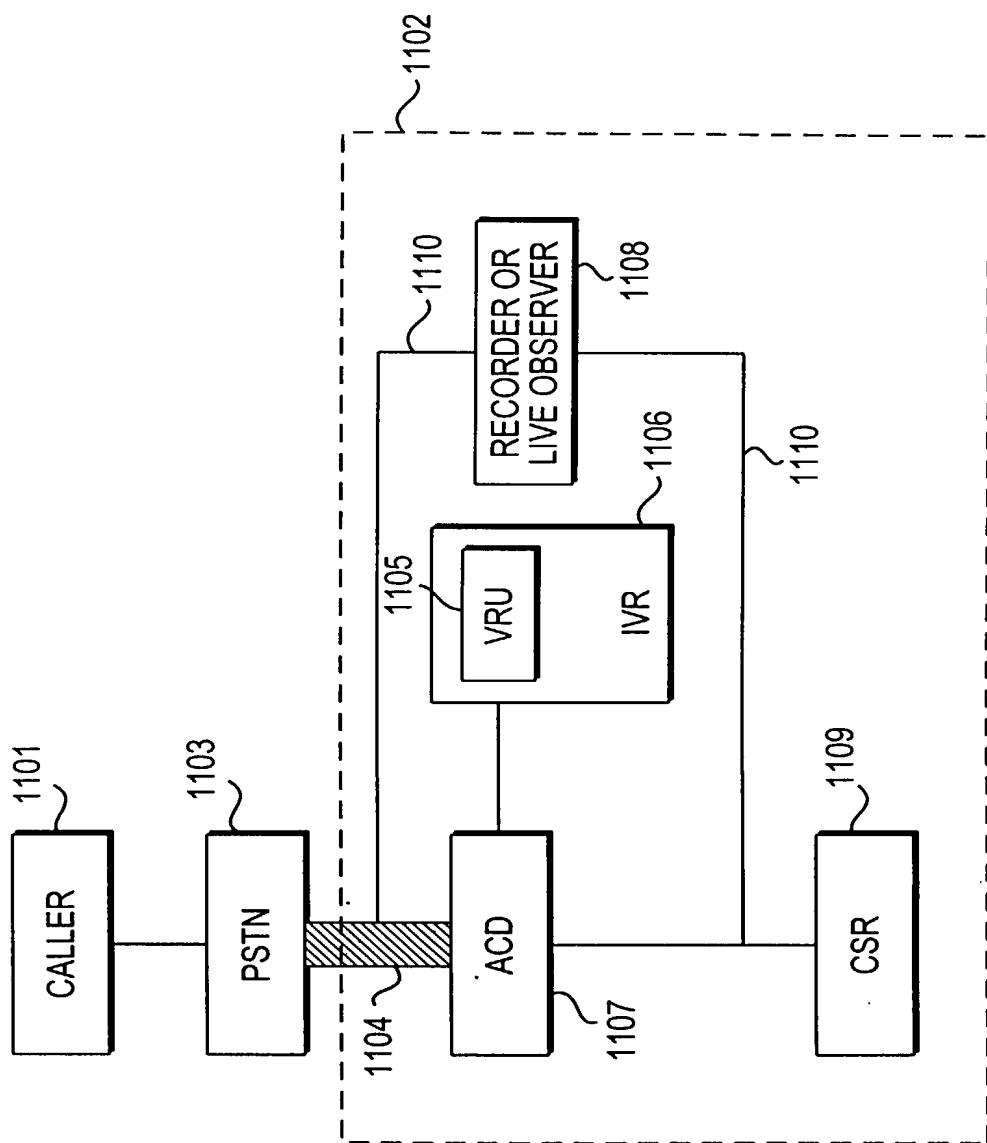


FIG. 2A

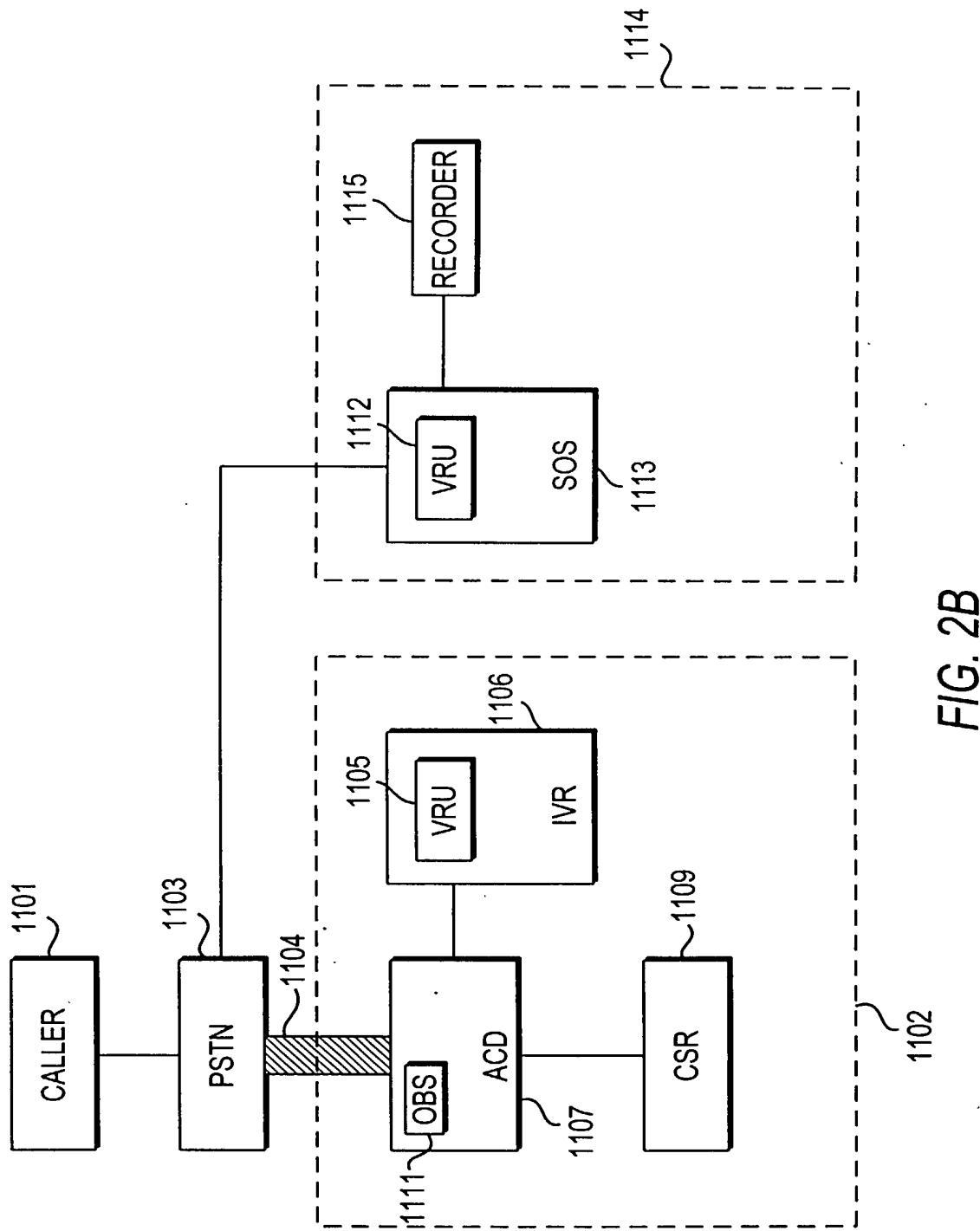


FIG. 2B

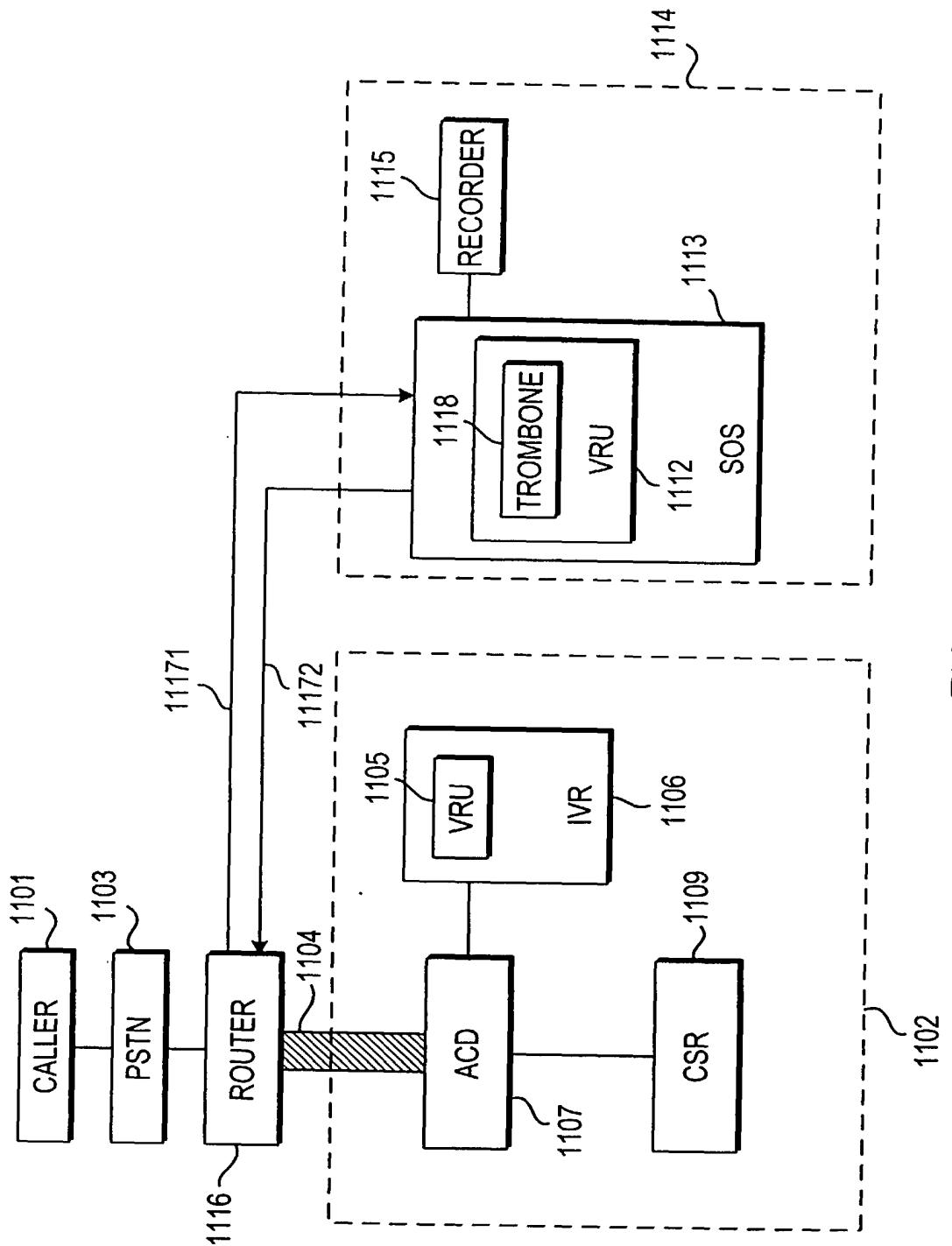


FIG. 2C

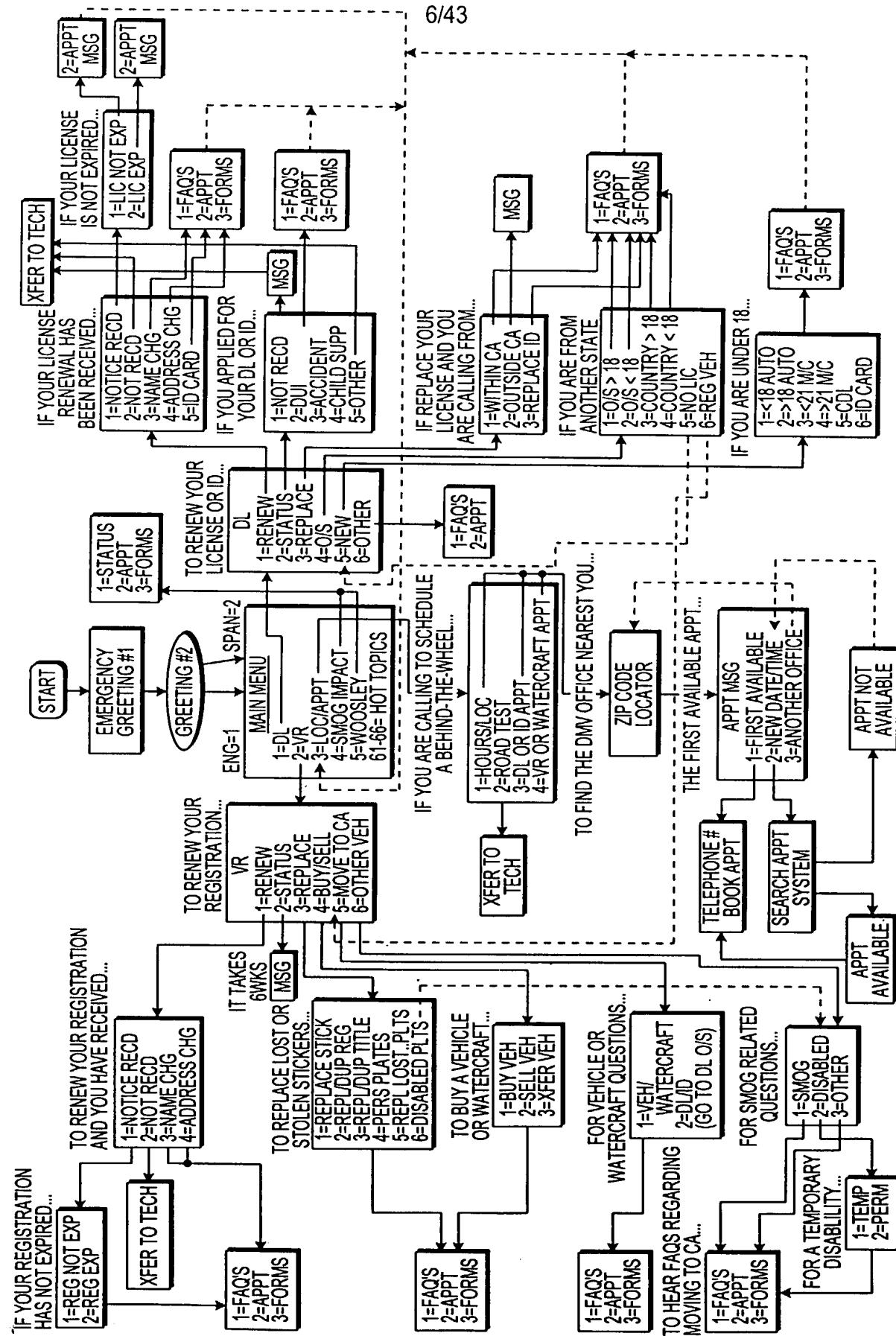


FIG. 3A

01-4004A; Patrick Peterson et al. APPARATUS AND METHOD FOR ANALYZING ROUTING OF CALLS IN AN AUTOMATED RESPONSE SYSTEM Express Mail No. EL029404386US

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FIG. 3C-1

FIG. 3C-2

FIG. 3B

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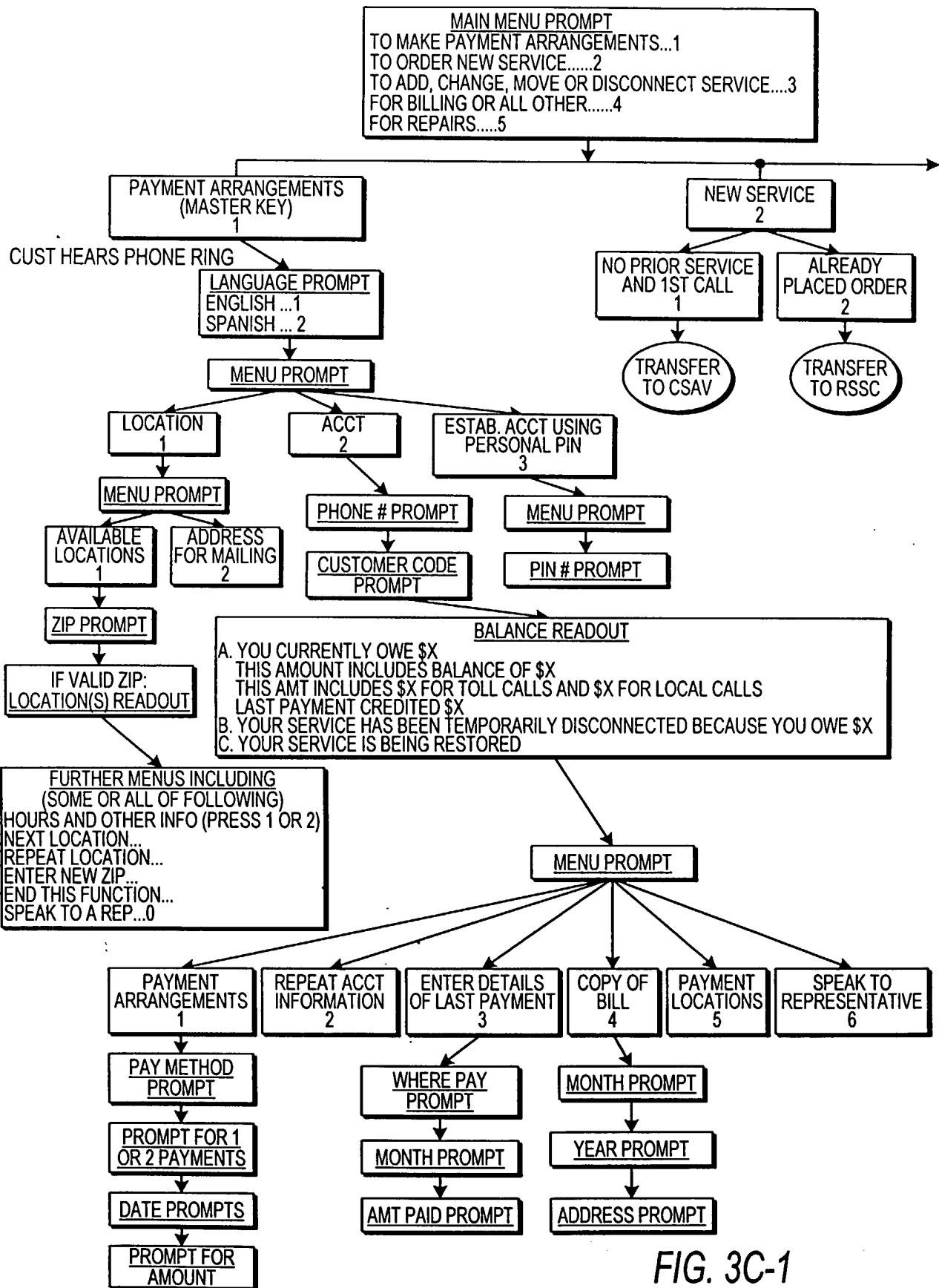


FIG. 3C-1

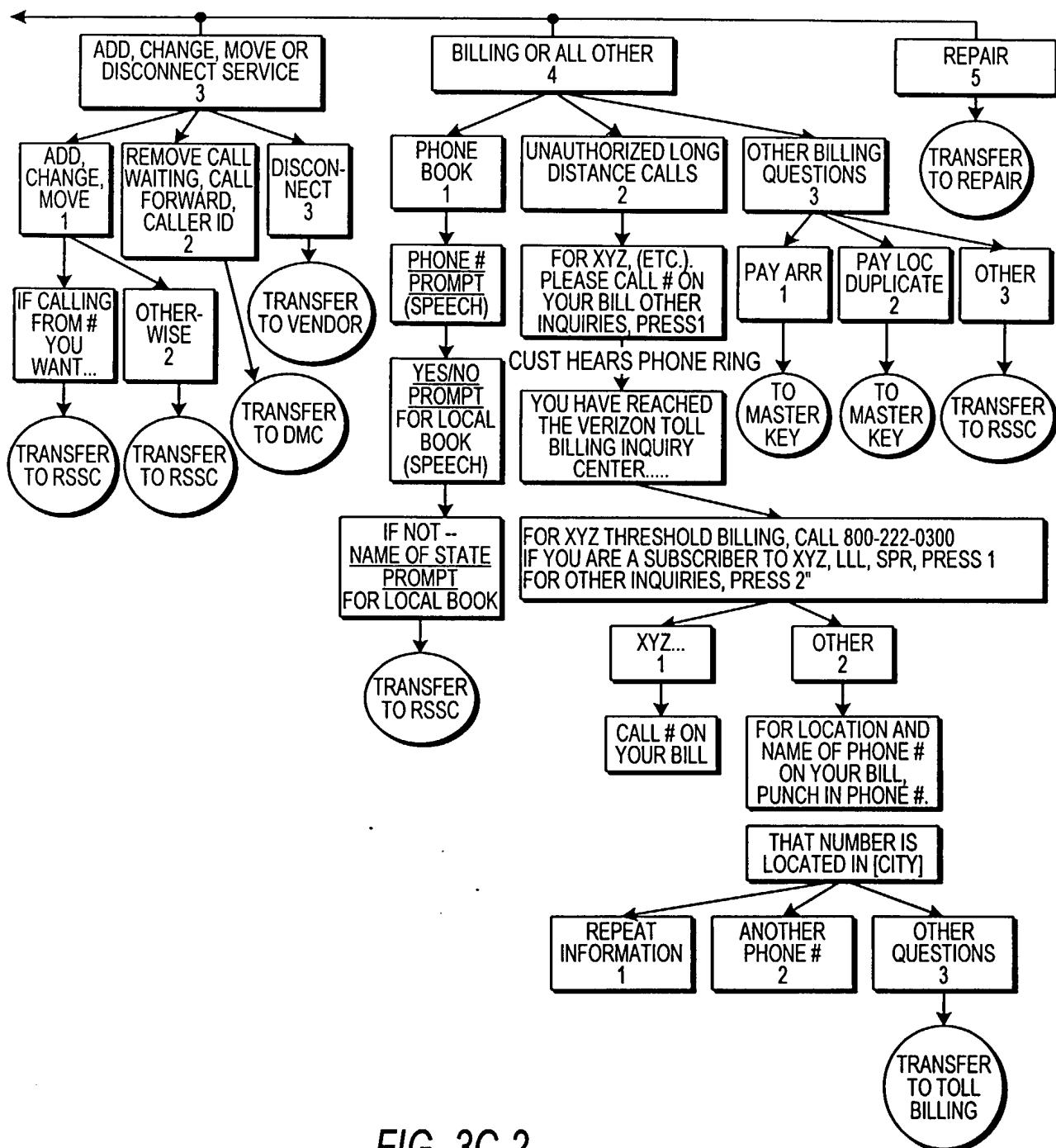


FIG. 3C-2

01-4004A; Patrick Peterson et al.
APPARATUS AND METHOD FOR ANALYZING ROUTING
OF CALLS IN AN AUTOMATED RESPONSE SYSTEM
Express Mail No. EL029404386US

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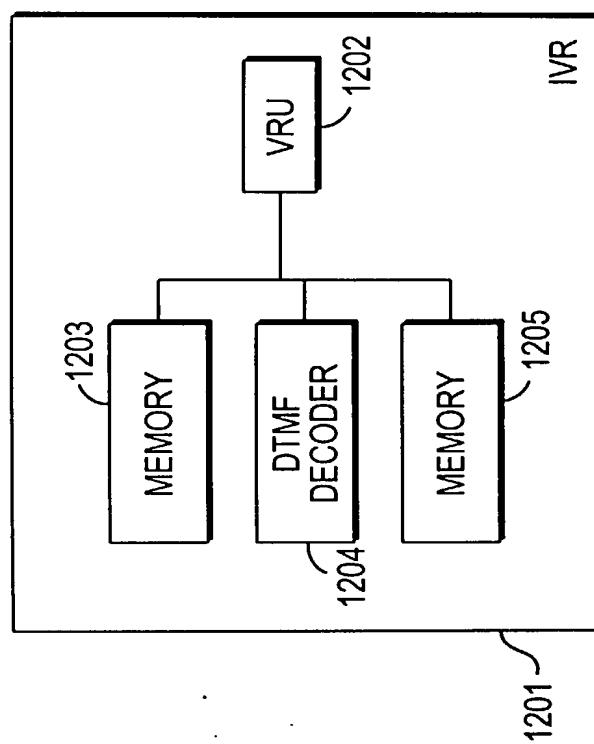


FIG. 3D

01-4004A; Patrick Peterson et al.
APPARATUS AND METHOD FOR ANALYZING ROUTING
OF CALLS IN AN AUTOMATED RESPONSE SYSTEM
Express Mail No. EL029404386US

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STATE	TIME	OUTCOME
CALL ARRIVAL	##.##.##	DATE, CALLER IDENTIFICATION
INITIAL MENU	##.##.##	TOUCH TONE SELECTION, E.G., 3
TELEPHONE NUMBER PROMPT	##.##.##	TOUCH TONE NUMBERS PRESSED, E.G., 617-555-1212
VALIDATE TELEPHONE NUMBER	##.##.##	INVALID NUMBER
TELEPHONE NUMBER RE-PROMPT	##.##.##	TOUCH TONE NUMBERS PRESSED
VALIDATE TELEPHONE NUMBER	##.##.##	VALID NUMBER
MENU 1	##.##.##	TOUCH TONE SELECTION
QUERY A	##.##.##	TOUCH TONE NUMBERS PRESSED
QUERY B	##.##.##	TOUCH TONE NUMBERS PRESSED
MENU 2	##.##.##	TOUCH TONE SELECTION
TRANSFER TO AGENT	##.##.##	TRANSFER QUEUE (CALLER ON HOLD)
IVR END	##.##.##	TRANSFER COMPLETED

FIG. 3E

01-4004A; Patrick Peterson et al.
 APPARATUS AND METHOD FOR ANALYZING ROUTING
 OF CALLS IN AN AUTOMATED RESPONSE SYSTEM
 Express Mail No. EL029404386US

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UNIQUE ID	TIME	STATE	OUTCOME
212-123-4567	##,##,##	CALL ARRIVAL	DATE
212-123-4567	##,##,##	INITIAL MENU	TOUCH TONE SELECTION
212-123-4567	##,##,##	ACCOUNT NO. PROMPT	TOUCH TONE NUMBERS PRESSED
212-123-4567	##,##,##	VALIDATE NUMBER	INVALID
212-123-4567	##,##,##	ACCOUNT NO. RE-PROMPT	CALL TERMINATED BY CALLER
201-321-4567	##,##,##	CALL ARRIVAL	DATE
201-321-4567	##,##,##	INITIAL MENU	TOUCH TONE SELECTION
201-321-4567	##,##,##	ACCOUNT NO. PROMPT	TOUCH TONE NUMBERS PRESSED
201-321-4567	##,##,##	VALIDATE NUMBER	VALID
201-321-4567	##,##,##	MENU 1	TOUCH TONE SELECTION
201-321-4567	##,##,##	TRANSFER TO AGENT	TRANSFER COMPLETED
617-987-6543	##,##,##	CALL ARRIVAL	DATE
617-987-6543	•••	•••	•••
617-987-6543	##,##,##	ACCOUNT BALANCE	INFORMATION DELIVERED
617-987-6543	##,##,##	MENU 3	TOUCH TONE ELECTION
617-987-6543	##,##,##	TRANSFER TO AGENT	TRANSFER QUEUE (CALLER ON HOLD)
617-987-6543	##,##,##	IVR END	CALL TERMINATED BY CALLER

FIG. 3F

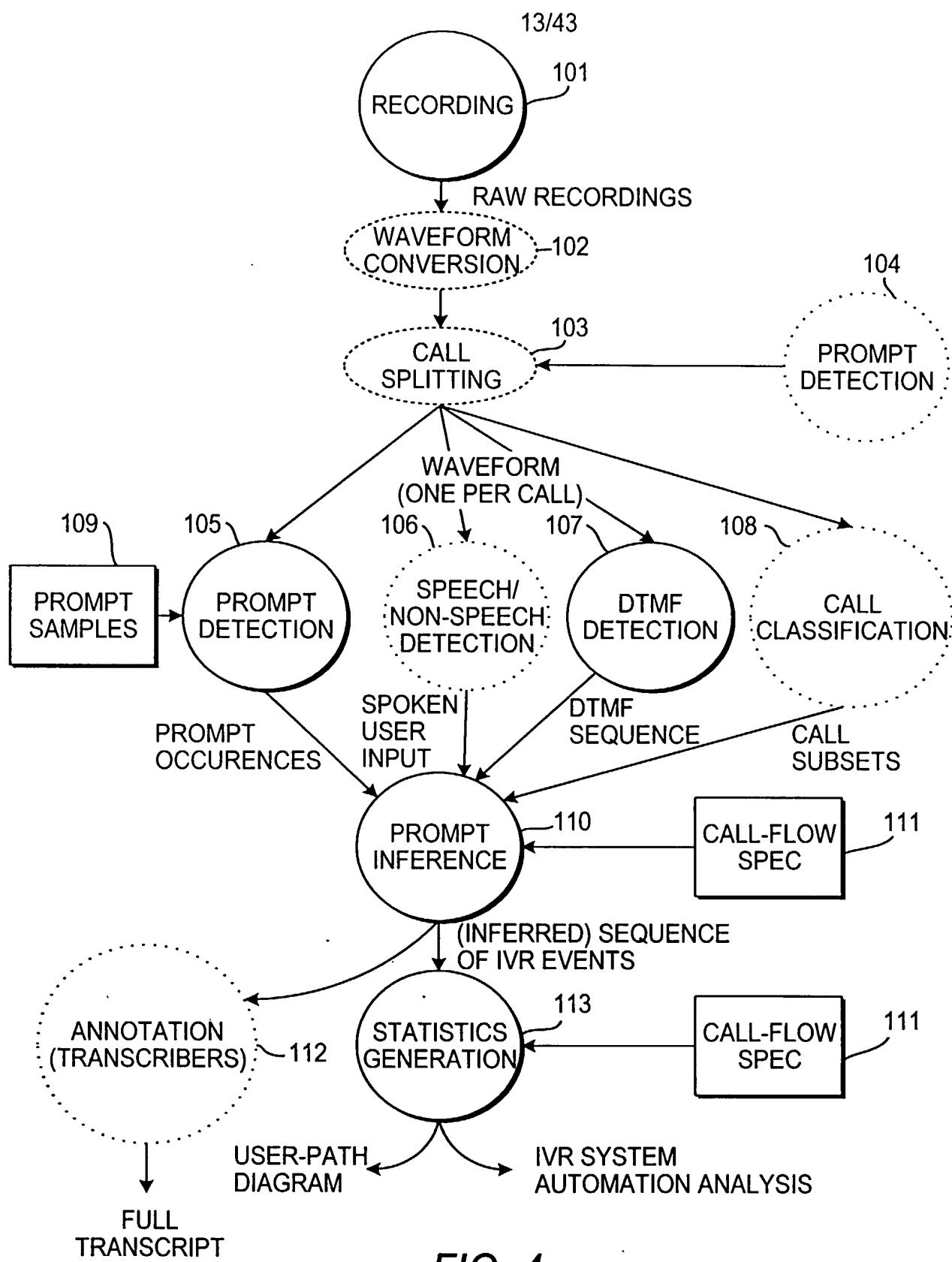


FIG. 4

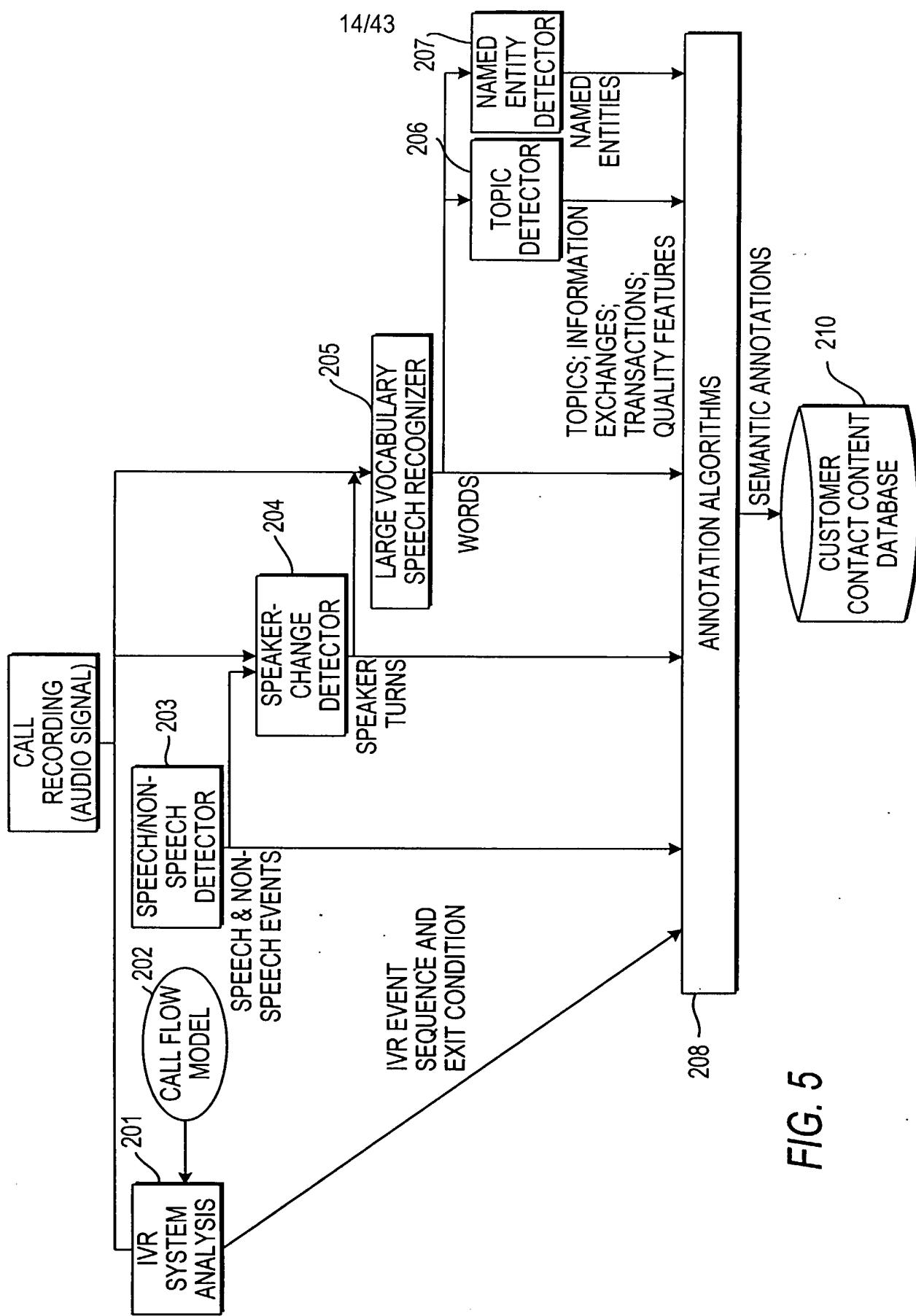


FIG. 5

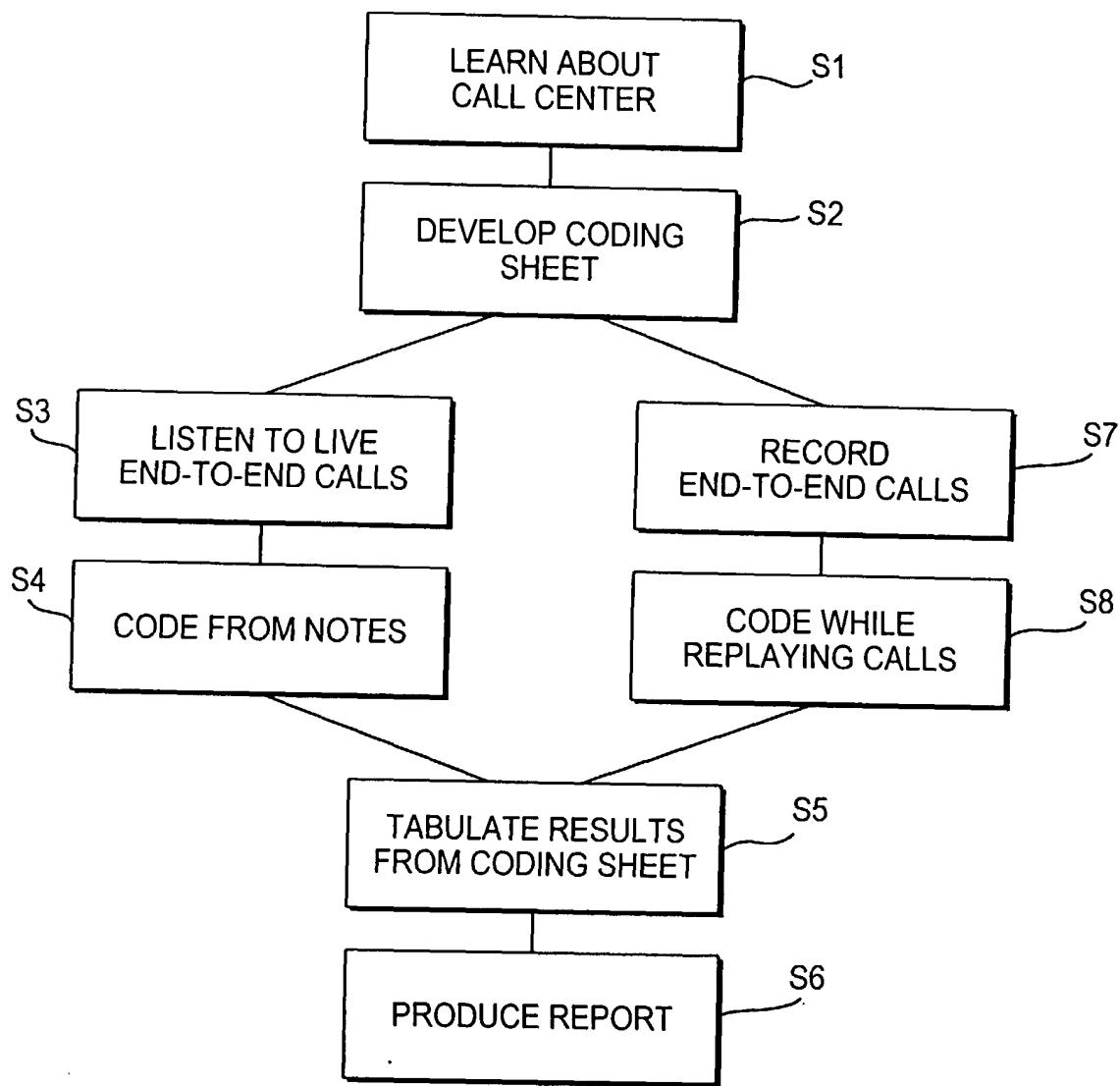
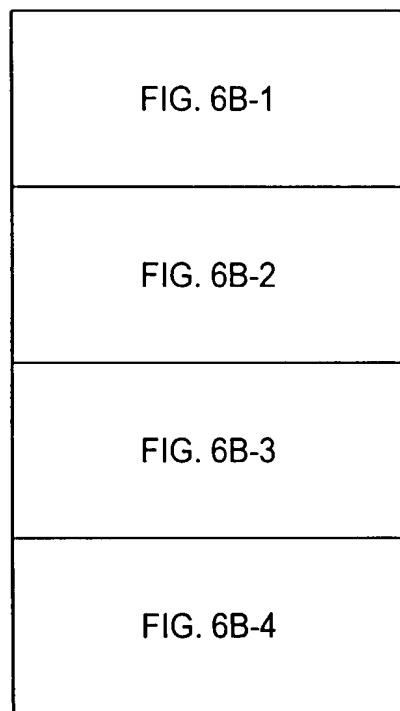


FIG. 6A

01-4004A; Patrick Peterson et al.
APPARATUS AND METHOD FOR ANALYZING ROUTING
OF CALLS IN AN AUTOMATED RESPONSE SYSTEM
Express Mail No. EL029404386US

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FIG. 6B



01-4004A; Patrick Peterson et al.
 APPARATUS AND METHOD FOR ANALYZING ROUTING
 OF CALLS IN AN AUTOMATED RESPONSE SYSTEM
 Express Mail No. EL029404386US

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CALL NUMBER	10	38	53	64	M-10	M-33	M-71	M-130	M-178	M-215
TRANSCRIBER	YJT	YJT	YJT	YJT	MJW	MJW	MJW	MJW	MJW	MJW
DATE	12/14/1996	12/17/1996	12/19/1996	27-DEC						
PHONE #:	212/234567	201/234567	914/234567	973/1234567	918/234567	732/1234567	516/1234567	202/234567	771/234567	
SEX OF CALLER:	M	M	M	M	F	F	F	F	M	M
CLOCK TIME (END OF INTERACTION)	1:58 PM	12:03 PM	2:40 PM	2:21 PM	12:41 PM	14:50:41	14:30:57	9:46:48	12:10:21	12:01:11
DURATION OF INTERACTION (WHOLE MIN)	6	12	10	4	0	1	4	9	3	
DURATION OF ENTIRE CALL (WHOLE MIN)	6	12	11	5	3	3	12	68	5	
WAS THIS A FULLY AUTOMATED CALL?	0	0	0	0	0	0	0	0	0	
DID CALL INVOLVE AN AGENT?	0	1	1	1	0	0	1	1	1	
DEBUG	0	0	0	0	0	0	0	0	0	
IVR SUMMARY: (MENU CHOICES)	4	31	31	40	40 (INVALID)	BILLING, OTHER ADD/CHANGE	REPAIR	NEW, 0	NEW	BILLING, OTHER
(USE WORDS: "PHONE #", "RING", "FAST BUSY", "HANG UP", "ROTARY")	3	PHONE NO	3	OTHER	ADDITIONAL CHANGE	INPUT NUMBER	22	OTHER	OTHER	4,3,3
HANG UP RING			3	4,3,3	3,1,973-622-3626					
DID CALLER TRY 0 AND FAIL?	0	0	0	1	0	0	1	0	0	
WAS CALL INCOMPLETE (0 FUNCTIONS?)	0	0	0	0	0	1	0	0	0	
(IF 1, INDICATE WHICH ONE APPLIES)										
ABANDON AT START OF IVR (RINGING OR INTRO)										
ABANDON AT PHONE # PROMPT										
ABANDON AT CUSTOMER ID PROMPT										
ABANDON AT OTHER PROMPT	1									
ABANDON WHILE RINGING FOR AGENT										
ABANDON AT ALL OUR AGENTS ARE CURRENTLY										
ABANDON AT FAST BUSY OR SYSTEM BUG										
UNUSUALLY HEAVY CALL VOLUMES										
WHERE IN IVR DID THEY ABANDON										
1MASTERKEY										
2NEW SERVICE										
3ADD/CHANGE										
4BILLING, OTHER	1									
5REPAIR										
(IF CALLER GOT TO AN AGENT, HOW?)										
BY ROTARY/PHONE (TONES PRESSED)?										
BY AUTO TRANSFER BASED ON PHONE NUMBER?										
THROUGH INTRODUCTION BY PREVIOUS AGENT?										
IN IVR THROUGH INVALID TIMEOUT?										
IN IVR, THROUGH A VALID NONZERO TRANSFER?	0	1	1	1	1	1	0	1	1	
BY PRESSING "0"										
OTHER (DIDN'T CATCH IT)										
INDICATE MENU CHOICES MADE IN IVR										
1. PAY ARRANGEMENTS (MASTER KEY)										
2-1 ORDER NEW SERVICE (WELCOME CENTER)										

FIG. 6B-1

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FIG. 6B-2

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FIG. 6B-3

APPARATUS AND METHOD FOR ANALYZING ROUTING

APPENDIX AND INDEX OF CALLS IN AN AUTOMATED RESPONSE SYSTEM

Express Mail No. EL029404386US

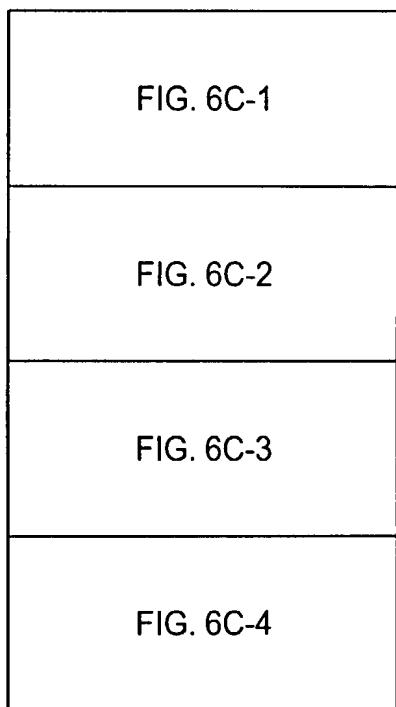
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FIG. 6B-4

01-4004A; Patrick Peterson et al. APPARATUS AND METHOD FOR ANALYZING ROUTING OF CALLS IN AN AUTOMATED RESPONSE SYSTEM Express Mail No. EL029404386US

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FIG. 6C



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	A	C	D	E
1	CALL NUMBER	ALL CALLS STATISTICS		
2	TRANSCRIBER			
3	DATE:			
4	PHONE #:			
5	SEX OF CALLER:			
6	CLOCK TIME (END OF INTERACTION)			
7	DURATION OF INTERACTION (WHOLE MIN)	5.123042506	0%	
8	DURATION OF ENTIRE CALL (WHOLE MIN)	7.548098434	0%	
9	WAS THIS A FULLY AUTOMATED CALL?	14	3%	
10	DID CALL INVOLVE AN AGENT?	339	447	
11				
12	IVR SUMMARY: (MENU CHOICES)	0	0%	
13	(USE WORDS: "PHONE #" "RING" "FAST BUSY"	0	0%	
14	"HANG UP" "ROTARY"	0	0%	
15				
16	DID CALLER TRY 0 AND FAIL?	30	7%	
17	WAS CALL INCOMPLETE (0 FUNCTIONS?)	94	21%	
18	[IF 1, INDICATE WHICH ONE APPLIES]	0	0%	
19	ABANDON AT START OF IVR (RINGING OR INTRO)	0	0%	
20	ABANDON AT PHONE # PROMPT	4	1%	
21	ABANDON AT CUSTOMER ID PROMPT	2	0%	
22	ABANDON AT PROMPT	22	5%	
23	ABANDON WHILE RINGING FOR AGENT	2	0%	
24	ABANDON AT "ALL OUR AGENTS ARE CURRENTLY"	4	1%	
25	ABANDON AT FAST BUSY OR SYSTEM BUG	14	3%	
26	UNUSUALLY HEAVY CALL VOLUMES	17	4%	
27	OTHER:	29	6%	
28	WHERE IN IVR DID THEY ABANDON			
29	1 MASTERKEY	20	4%	
30	2 NEW SERVICE	3	1%	
31	3 ADD/CHANGE	13	3%	
32	4 BILLING/OTHER	12	3%	
33	5 REPAIR	2	0%	
34	OTHER	18	4%	
35				
36	[IF CALLER GOT TO AN AGENT, HOW?]	0	0%	
37	BY ROTARY PHONE (0 TONES PRESSED)?	62	14%	
38	BY AUTO TRANSFER BASED ON PHONE NUMBER?	0	0%	
39	THROUGH INTRODUCTION BY PREVIOUS AGENT?	0	0%	
40	IN IVR THROUGH INVALID/TIMEOUT?	28	6%	
41	IN IVR, THROUGH A VALID NONZERO TRANSFER?	228	51%	
42	BY PRESSING "0"	19	4%	
43	OTHER (DIDN'T CATCH IT)	2	0%	
44	INDICATE MENU CHOICES MADE IN IVR	0	0%	
45	1. PAY ARRANGMENTS (MASTER KEY)	12	3%	
46	2-1 ORDER NEW SERVICE (WELCOME CENTER)	28	6%	
47	2-2 NEW SERVICE - FOLLOW -UP	37	8%	
48	3-1 ADD/ADD	64	14%	
49	3-2 ADD/REMOVE	12	3%	

FIG. 6C-1

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	A	C	D	E
50	3-3 DISCONNECT	11	2%	
51	4-1 BILLING/PHONE DIRECTORY	1	0%	
52	4-2 BILLING/ UNAUTHOURIZED CALLS	11	2%	
53	4-3-1 BILLING/OTHER/PAY/MASTER K	3	1%	
54	4-3-2 BILLING/OTHER/MASTER KEY	11	2%	
55	4-3-3 BILLING/OTHER/OTHER	71	16%	
56	5 REPAIR (REPAIR CENTER)	14	3%	
57	1-2 (SPANISH)	1	0%	
58	[INDICATE FUNCTIONS COMPLETED IN IVR]	0	0%	
59	PAYMENT CENTER LOCATION	3	1%	
60	PAYMENT CENTER HOURS	0	0%	
61	PAYMENT MAILING ADDRESS	2	0%	
62	ACCOUNT INFORMATION	14	3%	
63	ESTABLISH ACCT USING PIN	0	0%	
64	PAYMENT ARRANGEMENTS	1	0%	
65	ENTER DETAILS OF LAST PAYMENT	0	0%	
66	COPY OF BILL	0	0%	
67	ORDER PHONE DIRECTORY	0	0%	
68	IDENTIFY UNAUTH CALL	4	1%	
69	GET 800 # TO IDENTIFY UNAUTH CALLS-ETC.	3	1%	
70				
71	AGENT CALL SUMMARY: (PROBLEM + SOLUTION)			
72				
73				
74	COULD THIS HAVE BEEN DONE IN MK/TB	24	5%	
75				
76	I. DID AGENT PERFORM AUTOMATED FUNCTIONS?	25	6%	
77	[INDICATE WHICH ONES]			
78	PAYMENT CENTER LOCATION	0	0%	
79	PAYMENT CENTER HOURS	0	0%	
80	PAYMENT MAILING ADDRESS	0	0%	
81	ACCOUNT INFORMATION	9	2%	
82	ESTABLISH ACCT USING PIN	0	0%	
83	PAYMENT ARRANGEMENTS	5	1%	
84	ENTER DETAILS OF LAST PAYMENT	0	0%	
85	COPY OF BILL	5	1%	
86	ORDER PHONE DIRECTORY	1	0%	
87	IDENTIFY ABC UNAUTH CALL	5	1%	
88	IDENTIFY XYZ ETC. UNAUTH CALL	0	0%	
89				
90	II. DID AGENT DO POTENTIALLY AUTO FUNCTIONS?	16	4%	
91	[INDICATE WHICH ONES]			
92	FIND TOLL CALL RANGE	8	0%	
93	REQUEST CALLING CARD			
94	GET VOICE MAIL ACCESS #	3	0%	
95	GET 3+2 DIGIT NUMBER ON BILL	2	0%	
96	GET INFO ON RATES-BY MAIL OR SEE DIRECT	0	0%	
97	GET ADDRESS FOR WRITING TO REFUTE BILL	0	0%	

FIG. 6C-2

01-4004A; Patrick Peterson et al.
 APPARATUS AND METHOD FOR ANALYZING ROUTING
 OF CALLS IN AN AUTOMATED RESPONSE SYSTEM
 Express Mail No. EL029404386US

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	A	C	D	E
98	OTHER: (POTENTIALLY AUTOMATABLE)	3	0%	
99				
100	III. DID AGENT DO NON-AUTOMATED FUNCTIONS?	220	49%	
101	[INDICATE WHICH ONES]			
102	PAYMENT ARRANGEMENTS	5	1%	
103	NEW SERVICE- EXPLAINS 2 PARTS NEEDED	21	5%	
104	NEW SERVICE FOLLOW UP (NOT DISCONNECT)	10	2%	
105	CHECK ON STATUS OF PENDING ORDER	6	0%	
106	SALES (PKGS, SERVICES, LINES, JACKS, ETC)	65	15%	
107	SALES (REMOVE FEATURE- AGENT ASKS WHY)	16	4%	
108	DISCONNECT (AND FORWARD CALLS)	9	2%	
109	EXPLAIN BILL	25	6%	
110	REMOVE UNAUTHORIZED CALL FROM BILL	4	1%	
111	REMOVE OTHER CHARGES FROM BILL	2	0%	
112	CONFIRM TODAY'S REPAIR SCHEDULE	3	1%	
113	SCHEDULE A VISIT WIHT REPAIRMAN	8	2%	
114	TELL HOW/WHEN TO USE FEATURES THEY OWN	12	3%	
115	OTHER	34	8%	
116	WAS THIS CALL CODED ABOVE?	675	579	
117	DID AGENT SEE CALL AS MISDIRECTED?	81	18%	
118	DID AGENT TRANSFER THE CALL?	82	18%	
119	IV. IF TRANSFERRED, TO WHAT DESTINATION?	0	0%	
120	800-281-8584 MASTER KEY	0	0%	
121	800-275-2355 REPAIR	12	3%	
122	800-287-9933 COLLECTION CENTER	10	2%	
123	800-870-0000 SERVICE SOLUTIONS	0	0%	
124	TPV	1	0%	
125	888-243-9733 TOLL BILLING	9	2%	
126	800-246-2800 UNLAWFUL CALL SOL CTR	0	0%	
127	800-585-6127 INSTALLATION HOTLINE	11	2%	
128	877-525-2375 DSL	2	0%	
129	800-427-9977 "BUSINESS OFFICE"	1	0%	
130	DMC	1	0%	
131	NEW SERVICE FOLLOWUP	1	0%	
132	DISCONNECT	1	0%	
133	TELL HOW TO USE FEATURES	1	0%	
134	WELCOME CENTER	10	2%	
135	BUSINESS ACCOUNTS	2	0%	
136	ISP CALL/VERIZON ONLINE	2	0%	
137	WIRELESS	3	1%	
138	DIFFERENT CARRIER	2	0%	
139	SUPERVISOR	0	0%	
140	OTHER	3	1%	
141	TRANSER TO SPANISH AGENT	6	1%	
142	WAS TRANSER WARM (AGENT STAYED)?	34	8%	
143	DURATION WITH SECOND AGENT?	663	0.292715232	
144	FURTHER TRANSFERS?	14	3%	
145	[IF YES]			
146	TOTAL NUMBER OF AGENTS INVOLVED	205	9%	

FIG. 6C-3

01-4004A; Patrick Peterson et al.
 APPARATUS AND METHOD FOR ANALYZING ROUTING
 OF CALLS IN AN AUTOMATED RESPONSE SYSTEM
 Express Mail No. EL029404386US

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	A	C	D	E
147				
148	EXPLAIN:			
149				
150	TOPIC SUMMARY			
151	PAYMENT ARRANGEMENT	10		
152	NEW SERVICE	21		
153	ORDER FOLLOW-UP	16		
154	SALES-ADD	65		
155	SALES-REMOVE	16		
156	DISCONNECT	9		
157	PHONE DIRECTORY	1		
158	IUNAUTHORIZED CALLS	9		
159	BALANCE/COPY...	14		
160	OTHER	89		
161	REPAIR	11		
162	SPANISH	6		
163	REROUTE			
164		267		
165				
166				
167				
168				
169				
170				
171				
172				
173				
174	ROUTING SUMMARY			
175	1 OR 4-3-1 PAY ARRANGMENTS (MASTER KEY)			
176	2-1 ORDER NEW SERVICE (WELCOME CENTER)			
177	2-2 NEW SERVICE-FOLLOW-UP			
178	3-1 ADD/ADD			
179	3-2 ADD/REMOVE			
180	3-3 DISCONNECT			
181	4-1 BILLING/PHONE DIRECTORY			
182	4-2 BILLING/UNAUTHORIZED CALLS			
183	4-3-2 BALANCE/COPY/LOCATIONS/LAST PAYMENT			
184	4-3-3 OTHER			
185	5 REPAIR (REPAIR CENTER)			
186	1-2 (SPANISH)			
187	ROTARY (INITIAL TIMEOUT)			
188	INVALID, TIMEOUT, OR "0" ONCE IN IVR			
189	OTHER (UNKNOWN)			

FIG. 6C-4

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DATA	CONCLUSION
1. CUSTOMER ROUTES SELF IN IVR TO WRONG AGENT 2. AGENT TRANSFERS CUSTOMER IN RESPONSE TO CUSTOMER NEED.	MISROUTING (2 OR MORE AGENTS INVOLVED INSTEAD OF 1)
1. CUSTOMER ROUTES SELF IN IVR TO WRONG AGENT 2. AGENT PERFORMS FUNCTION ANYWAY.	MISROUTING (WRONG AGENT INVOLVED)
1. AGENT PERFORMS FUNCTION. 2. FUNCTION IS AVAILABLE IN IVR.	UNDERUTILIZATION OF IVR FUNCTIONALITY.
1. AGENT PERFORMS FUNCTION 2. FUNCTION NOT CURRENTLY AVAILABLE IN IVR. 3. FUNCTION COULD POTENTIALLY BE ADDED	IVR MISSING CRUCIAL FUNCTIONALITY
1. CUSTOMERS OPTING OUT OF IVR AT FEW POPULAR POINTS. 2. IVR DOES NOT PROMPT FOR ID AT THE POINT.	MISSSED OPPORTUNITY FOR AUTOMATED CUSTOMER DATA INPUT
1. AGENT STAYS ON THE LINE DURING TRANSFER 2. POLICY DOES NOT ADVOCATE A "WARM TRANSFER"	POSSIBLE POLICY VIOLATION (REGARDING WARM TRANSFERS)
1. AGENT STAYS ON THE LINE DURING TRANSFER 2. TIME ON HOLD WITH CUSTOMER SUGGESTS AGENT NOT USING SPECIAL QUEUE FOR TRANSFER	POSSIBLE POLICY VIOLATION (REGARDING USE OF FAST QUEUE FOR AGENT TRANSFERS)
1. # CUSTOMERS REMAINING SILENT IN IVR 2. PERCENTAGE OF ROTARY USERS KNOWN 3. IF 1 SUBSTANTIALLY EXCEEDS 2	CUSTOMERS REFUSING TO PLAY THE GAME
1. # COSTUMERS COOPERATING IN IVR 2. # CUSTOMERS GETTING READOUT BEFORE ABANDONING IF 1 SUBSTANTIALLY EXCEEDS 2	CUSTOMERS RECEIVING NO BENEFIT FROM IVR THOUGH WILLING TO TRY
1. # CALLS 2. # CALLERS COMPLETING AT LEAST 1 FUNCTIONS IN IVR (INCLUDING GETTING READOUT) AND NOT GOING TO AGENT IF 1 SUBSTANTIALLY EXCEEDS 2	LOW "COMPLETE-SELF-SERVE" RATE

FIG. 6D

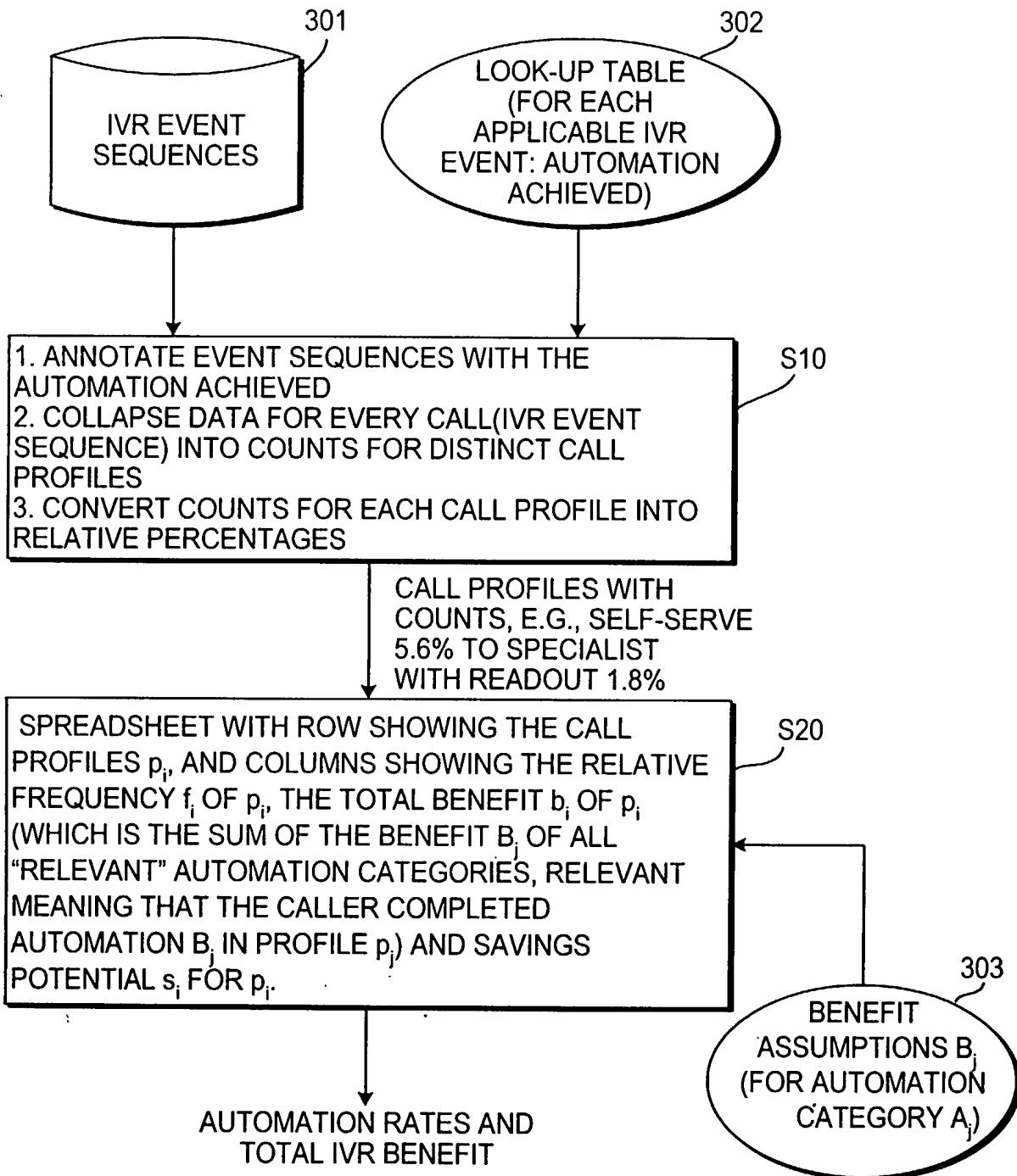


FIG. 7

CALL PROFILE (P _i)	TRAFFIC (f _i)	AUTOMATION (B _{ij})			BENEFIT (AGENT SECS)		
	CALLS	% CALLS	ACCOUNT #	ROUTING	INFO DELIVERY	ONE CALL	AVERAGE
FULLY-AUTOMATED CALLS	72	2.0%	A	R	I	105	2.1
TRANSFERS TO SPECIALIST AFTER INFORMATION READOUT	1	0.0%	A	R	I	105	0.0
TRANSFERS TO FLOOR AFTER INFO READOUT	38	1.0%	A		I	55	0.6
TRANSFERS TO SPECIALIST W/ ID	849	23.4%		R		40	9.3
TRANSFERS TO FLOOR W/ ID	1008	27.7%	A			15	4.2
TRANSFERS TO FLOOR W/O ID	591	16.3%					
MISROUTED TO SPECIALIST W/ ID	389	10.7%	A	-R		-25	-2.7
MISROUTED TO SPECIALIST W/O ID	6	0.2%		-R		-40	-0.1
ABANDONS	681	18.7%					
TOTAL	3636	100.0%	41.5%	14.5%	3.1%		13.4

FIG. 8

AUTOMATION CATEGORY	CALLER IDENTIFICATION ("A")	INFORMATION DELIVERY ("I")	ROUTING ("R")
ASSUMED BENEFIT [AGENT SECs]	15	40	40

FIG. 9

01-4004A; Patrick Peterson et al.
 APPARATUS AND METHOD FOR ANALYZING ROUTING
 OF CALLS IN AN AUTOMATED RESPONSE SYSTEM
 Express Mail No. EL029404386US

AUTOMATABLE TRANSACTIONS	#OCCURRENCES	TIME SPENT	FREQUENCY	SAVINGS POTENTIAL	AUTOMATION CATEGORY
ACCOUNT_BALANCE	88	27.31	21.5%	5.9	-
NEW_PAYMENT_ARRANGEMENT	56	20.94	13.7%	2.9	T
CURRENT_PAYMENT_ARRANGEMENT	9	22.08	2.2%	0.5	-
ZIP_CODE	2	9.48	0.5%	0.0	A
PAYMENT_LOCATION	18	21.3	4.4%	0.9	-
BALANCED_PAYMENT_PLAN_AMOUNT	6	21.8	1.5%	0.3	-
RULES_12_AND_22	11	13.5	2.7%	0.4	-
NEW_APPOINTMENT_DATE_TIME	84	14.51	20.5%	3.0	A
IS_GAS_APPLIANCE	3	24.75	0.7%	0.2	A
IS_NOT_GAS_APPLIANCE	3	9.22	0.7%	0.1	A
NEW_APPOINTMENT_CONFIRMATION_TELEP	82	18.26	20.0%	3.7	A
NEW_APPOINTMENT_LOCATION	66	15.19	16.1%	2.5	A
NEW_APPOINTMENT_DOG	57	11.72	13.9%	1.6	A
NEW_APPOINTMENT_MULTI_OR_SINGLE	0	0.0%	0.0	0.0	A
NEW_APPOINTMENT_ADULT_PRESENT	5	5.29	1.2%	0.1	A
APPOINTMENT_DETAILS_CONFIRMATION	13	36.14	3.2%	1.1	T
TOTAL NUMBER OF ANNOTATED CALLS	409			23.1	

WEIGHTED OPPORTUNITY: 16.6

%HANDLED BY AGENT 72%

FIG. 10

CUSTOMER CONTACT TYPE	% CALLS	AUTOMATION CATEGORIES			
		CUSTOMER ID	ROUTING	INFO DELIVERY	TRANSACTION
CUSTOMER SERVICE	8.7%	X			
BALANCE BILLING	36.7%	X	X	X	
PAYMENT ARRANGEMENTS	13.0%	X	X	X	X
PAYMENT OPTIONS	4.0%	X	X	X	X
TURN ON	3.0%				
RATES	1.3%		X	X	
STOP SERVICE	3.5%	X			
SERVICE	11.5%	X			
APPOINTMENT	16.5%	X	X	X	X
EMERGENCY	1.8%	X			
TOTAL/UPPER BOUNDS	100.0%	95.7%	71.5%	71.5%	29.5%

HOW TO TRANSFORM UPPER BOUNDS ON AUTOMATION TO AGENT TIME SAVING OPPORTUNITIES:

BENEFIT ASSUMPTION [AGENT SECs PER CALL] 15 5 40 40
 BENEFIT [AGENT SECs] 14.355 3.575 28.6 11.8
 TOTAL OPPORTUNITY 58.33

95.7% x 15 = 14.355

FIG. 11

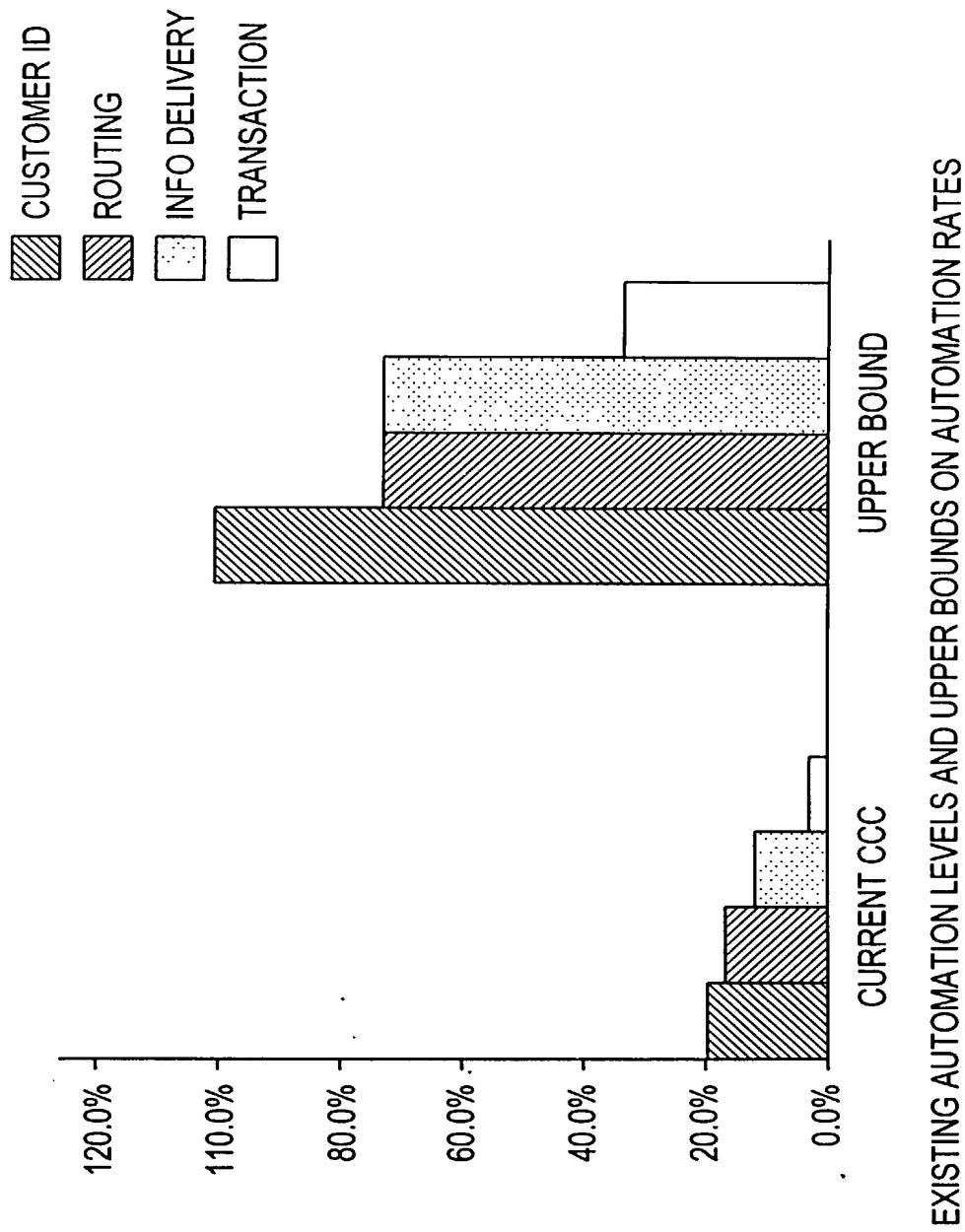


FIG. 12

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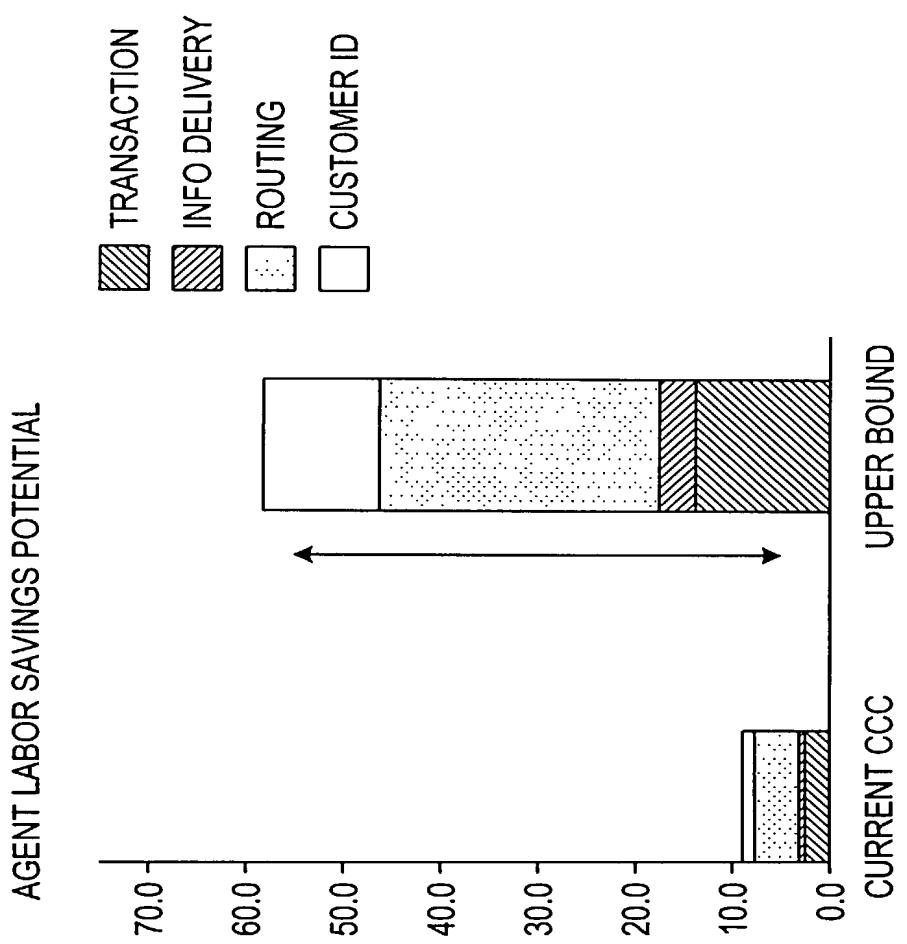
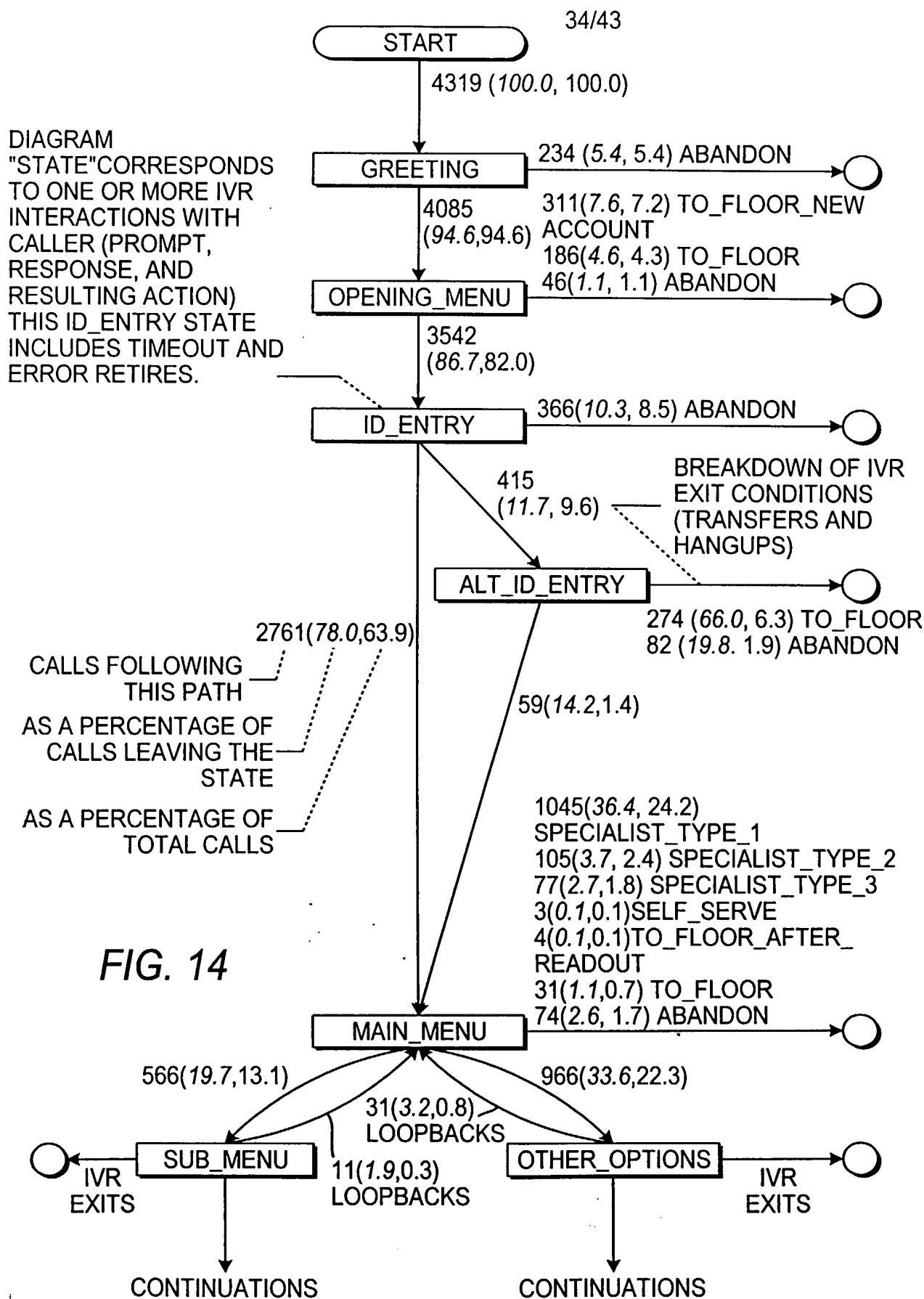


FIG. 13



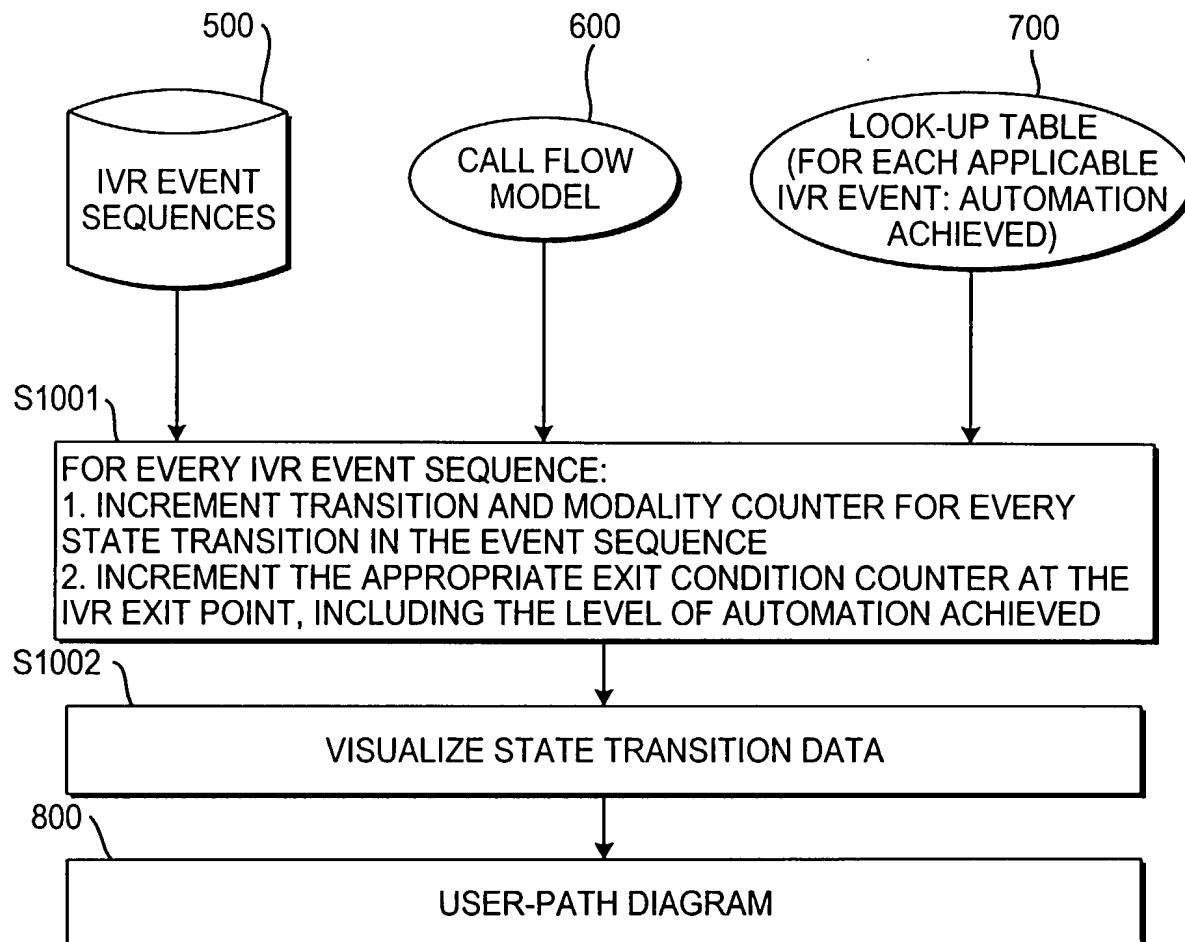


FIG. 15

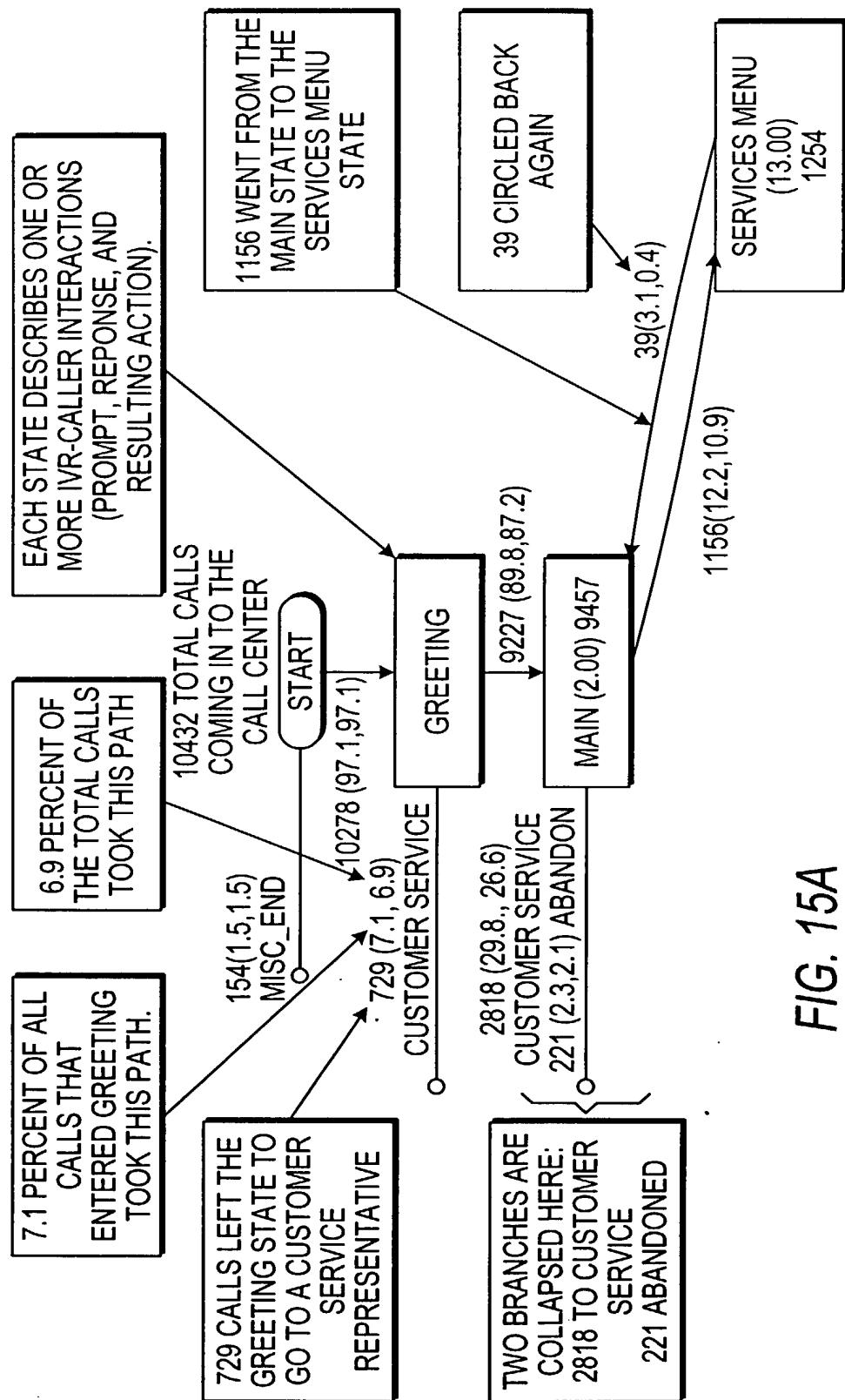


FIG. 15A

TRUE CALL TYPE (FROM AGENT INTERACTION)		CALLS BY CORRECTLY ROUTED			70% OVERALL ACCURACY
		SPECIALTY 1	SPECIALTY 2	SPECIALTY 3	
CALLER'S TT MENU CHOICE	SPECIALTY 1	33	0	16	65 51%
	SPECIALTY 2	0	24	0	24 100%
	SPECIALTY 3	0	2	8	10 80%
	FLOOR	22	10	26	208 72%
CALLS BY TRUE TOPIC TOPIC VOLUME CORRECTLY IDENTIFIED		55 18% 60%	36 12% 67%	50 16% 16%	166 54% 90%
					307 100%
					OTHERS = MISROUTED
					DIAGONAL = CORRECTLY ROUTED

FIG. 16

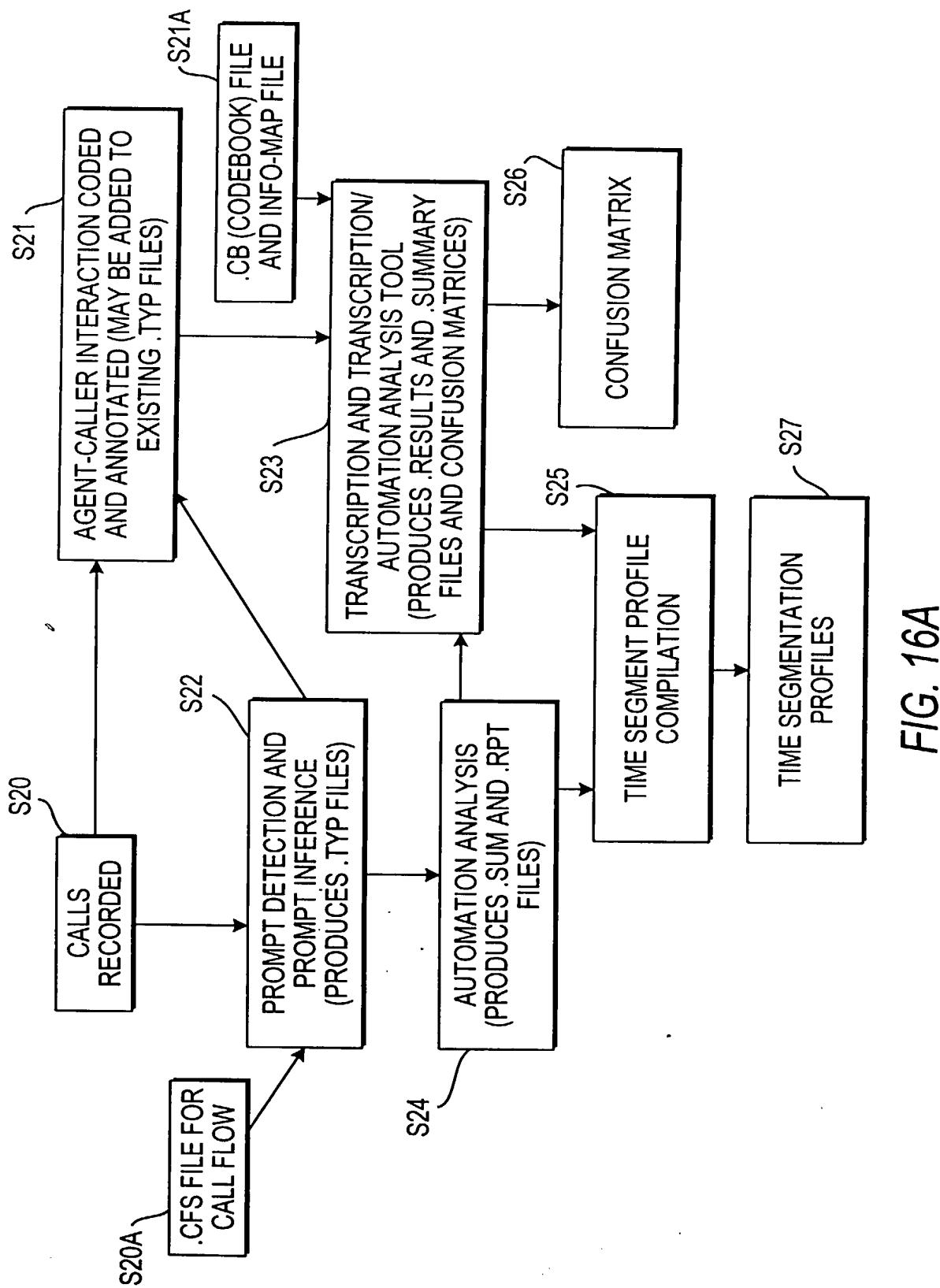


FIG. 16A

01-4004A; Patrick Peterson et al.
 APPARATUS AND METHOD FOR ANALYZING ROUTING
 OF CALLS IN AN AUTOMATED RESPONSE SYSTEM
 Express Mail No. EL029404386US

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A	B	C	D	E	F	G	H
1 FILENAME	IVR EXIT	IVR ROUTING	IVR INFORMATION	IVR ROUTING DEST	FIRST AGENT	FIRST AGENT	FIRST TOPIC
2 /D4M/TRANS/	INCOMPLETE	P-AGT_STARTHOMESERVICE	RULES_12_AND_22_READOUT	TURNON			STRT
3 /D4M/TRANS/	INCOMPLETE	P-AGT_CSRFROMNEWPAY	CALLING_FROM_SERVICE_LOCATION,CONFIRM_ADDR PAYMENTX				PAY-CHG
4 /D4M/TRANS/	INCOMPLETE	P-AGT_NEWPAYMENTARRAN	CALLING_FROM_SERVICE_LOCATION,TELEPHONE,CO PAYMENTX				PAY-MAK
5 /D4M/TRANS/	INCOMPLETE	P-AGT_XFERFROMTELEPHON	CALLING_FROM_SERVICE_LOCATION,CONFIRM	BALANCEBILLING			PAY-MAK
6 /D4M/TRANS/	INCOMPLETE	P-AGT_CSRFROMBILLING		BALANCEBILLING			ECI
7 /D4M/TRANS/	INCOMPLETE	P-AGT_CSRFROMBILLING		BALANCEBILLING			RSTR
8 /D4M/TRANS/	INCOMPLETE	P-AGT_DUPSTATFAILURE	CALLING_FROM_SERVICE_LOCATION,TELEPHONE	BALANCEBILLING			OTH
9 /D4M/TRANS/	INCOMPLETE	P-AGT_CSRFROMMAIN		CUSTOMERSERVICE			PAY-MAK
10 /D4M/TRANS/	INCOMPLETE	P-AGT_CSRFROMMAIN		CUSTOMERSERVICE			PAY-REV
11 /D4M/TRANS/	INCOMPLETE	P-AGT_XFERFROMCONFIRMA	CALLING_FROM_SERVICE_LOCATION,CONFIRM_ADDR PAYMENTX				PAY-MAK
12 /D4M/TRANS/	INCOMPLETE	P-AGENT_START_COMM	RULES_12_AND_22_READOUT	TURNON			CHNG
13 /D4M/TRANS/	INCOMPLETE	P-AGT_NEWPAYMENTARRAN	CALLING_FROM_SERVICE_LOCATION,CONFIRM_ADDR PAYMENTX				PAY-MAK
14 /D4M/TRANS/	INCOMPLETE	P-AGT_STARTCLEANANDSHO	RULES_12_AND_22_READOUT	TURNON			CHNG
15 /D4M/TRANS/	INCOMPLETE	P-AGT_CSRFROMBILLING		BALANCEBILLING			PAY-MAK
16 /D4M/TRANS/	INCOMPLETE	P-AGT_CSRFROMNEWPAY	CALLING_FROM_SERVICE_LOCATION,CONFIRM_ADDR PAYMENTX				PAY-MAK
17 /D4M/TRANS/	INCOMPLETE	P-AGT_CSRFROMMAIN		CUSTOMERSERVICE			PAY-MAK
18 /D4M/TRANS/	INCOMPLETE	P-AGT_CSRFROMDUPLICATE	CALLING_FROM_SERVICE_LOCATION,TELEPHONE,CO PAYMENTX	BALANCEBILLING			ECI
19 /D4M/TRANS/	INCOMPLETE	P-AGT_STARTGASHOME	RULES_12_AND_22_READOUT	TURNON			STRT
20 /D4M/TRANS/	INCOMPLETE	P-AGT_XFERFROMTELEPHON	CALLING_FROM_SERVICE_LOCATION,TELEPHONE	PAYMENTX			BAL
21 /D4M/TRANS/	INCOMPLETE	P-AGT_NEWPAYMENTARRAN	CALLING_FROM_SERVICE_LOCATION,CONFIRM_ADDR PAYMENTX				PAY-MAK
22 /D4M/TRANS/	INCOMPLETE	P-AGT_XFERFROMTELEPHON	CALLING_FROM_SERVICE_LOCATION,TELEPHONE	BALANCEBILLING			PAY-MAK
23 /D4M/TRANS/	INCOMPLETE	P-AGT_XFERFROMCONFIRMA	CALLING_FROM_SERVICE_LOCATION,TELEPHONE,CO PAYMENTX				PAY
24 /D4M/TRANS/	INCOMPLETE	P-AGT_CSRFROMMAIN		CUSTOMERSERVICE			OTH
25 /D4M/TRANS/	INCOMPLETE	P-AGT_CSRFROMMAIN		CUSTOMERSERVICE			PAY-MAK
26 /D4M/TRANS/	INCOMPLETE	P-AGENT_IDMAKE-APPOINTM		APPOINTMENT			RSTR
27 /D4M/TRANS/	INCOMPLETE	P-AGT_CSRFROMMAIN		CUSTOMERSERVICE			RSTR
28 /D4M/TRANS/	INCOMPLETE	P-AGT_STARTHOMESERVICE	RULES_12_AND_22_READOUT	TURNON			STRT
29 /D4M/TRANS/	INCOMPLETE	P-AGT_CSRFROMMAIN		CUSTOMERSERVICE			PAY-MAK
30 /D4M/TRANS/	INCOMPLETE	P-AGEND-MAIL_ELEC_R	RULES_12_AND_22_READOUT	RATES			STRT
31 /D4M/TRANS/	INCOMPLETE	P-AGT_CSRFROMMAIN		CUSTOMERSERVICE			PAY-MAK
32 /D4M/TRANS/	INCOMPLETE	P-AGT_REFUSEDNEWPAY_M	CALLING_FROM_SERVICE_LOCATION,CONFIRM_ADDR PAYMENTX				PAY-MAK
33 /D4M/TRANS/	INCOMPLETE	P-AGT_INCORRECTNOURRE	CALLING_FROM_SERVICE_LOCATION,CONFIRM_ADDR PAYMENTX				PAY-REV
34 /D4M/TRANS/	INCOMPLETE	P-AGT_XFERFROMTELEPHON	CALLING_FROM_SERVICE_LOCATION,TELEPHONE	PAYMENTX			PAY-MAK
35 /D4M/TRANS/	INCOMPLETE	P-AGT_CSRFROMBILLING		BALANCEBILLING			BIL
36 /D4M/TRANS/	INCOMPLETE	P-AGT_CSRFROMMAIN		CUSTOMERSERVICE			PAY-MAK

FIG. 17

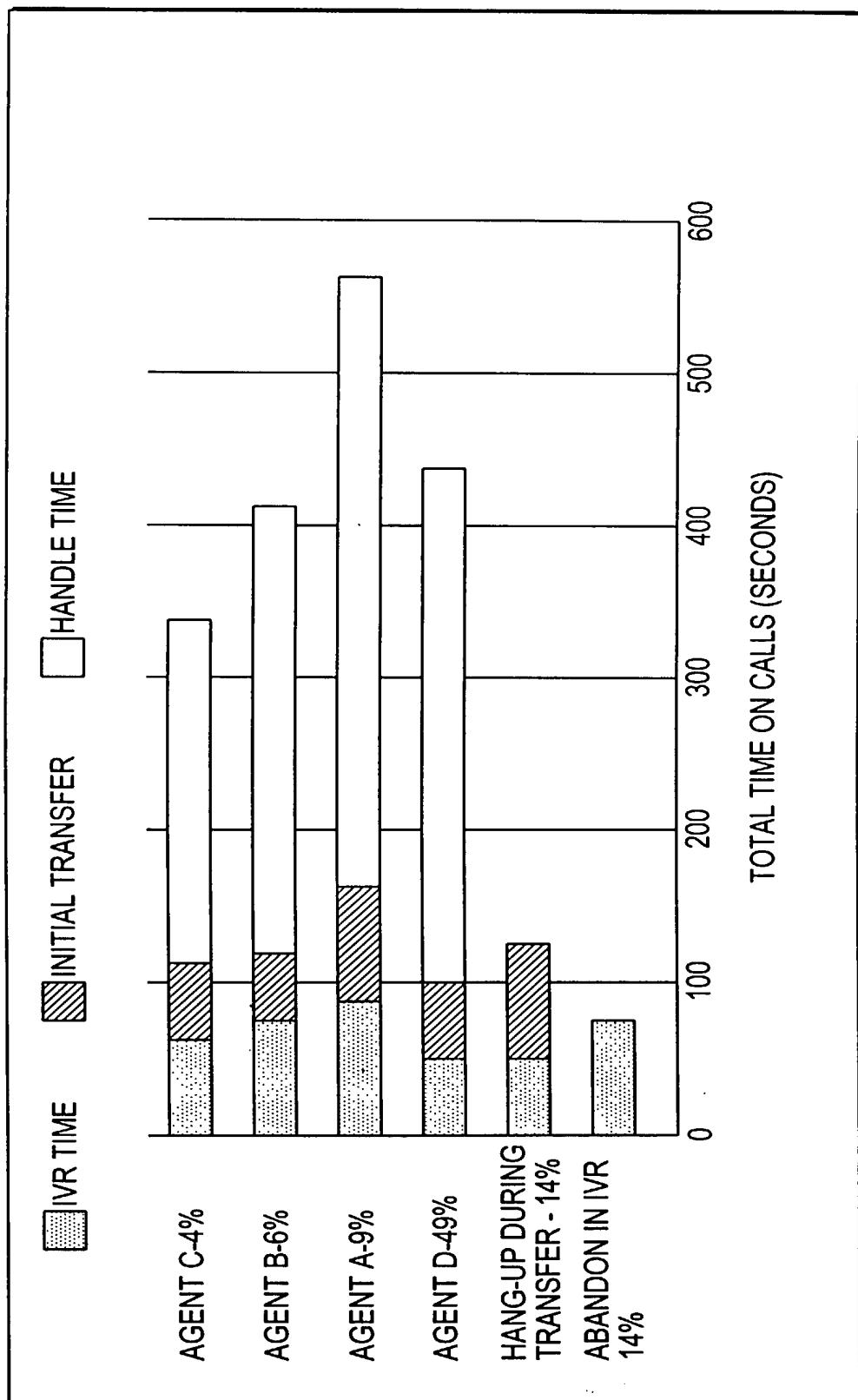


FIG. 18

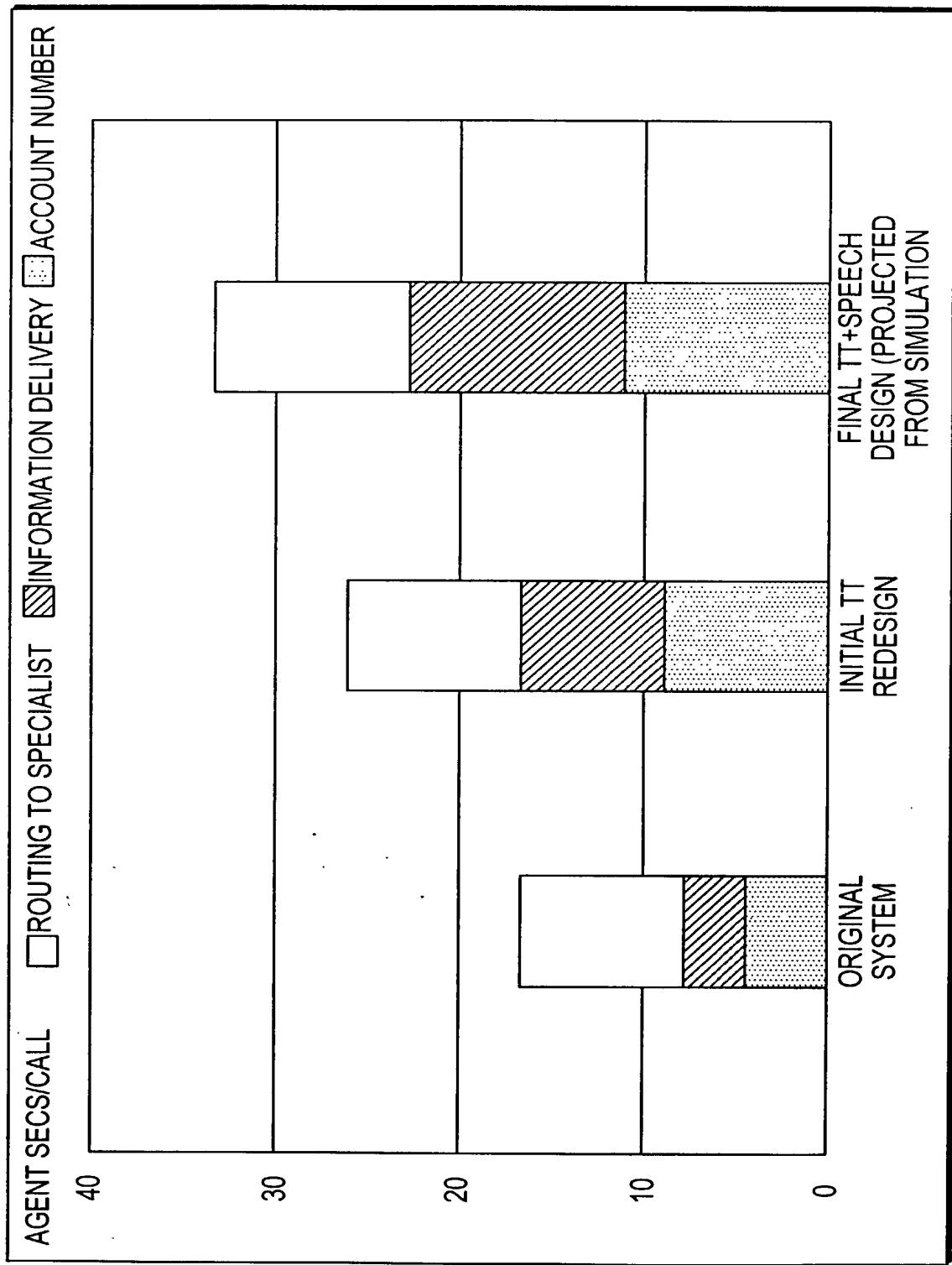


FIG. 19

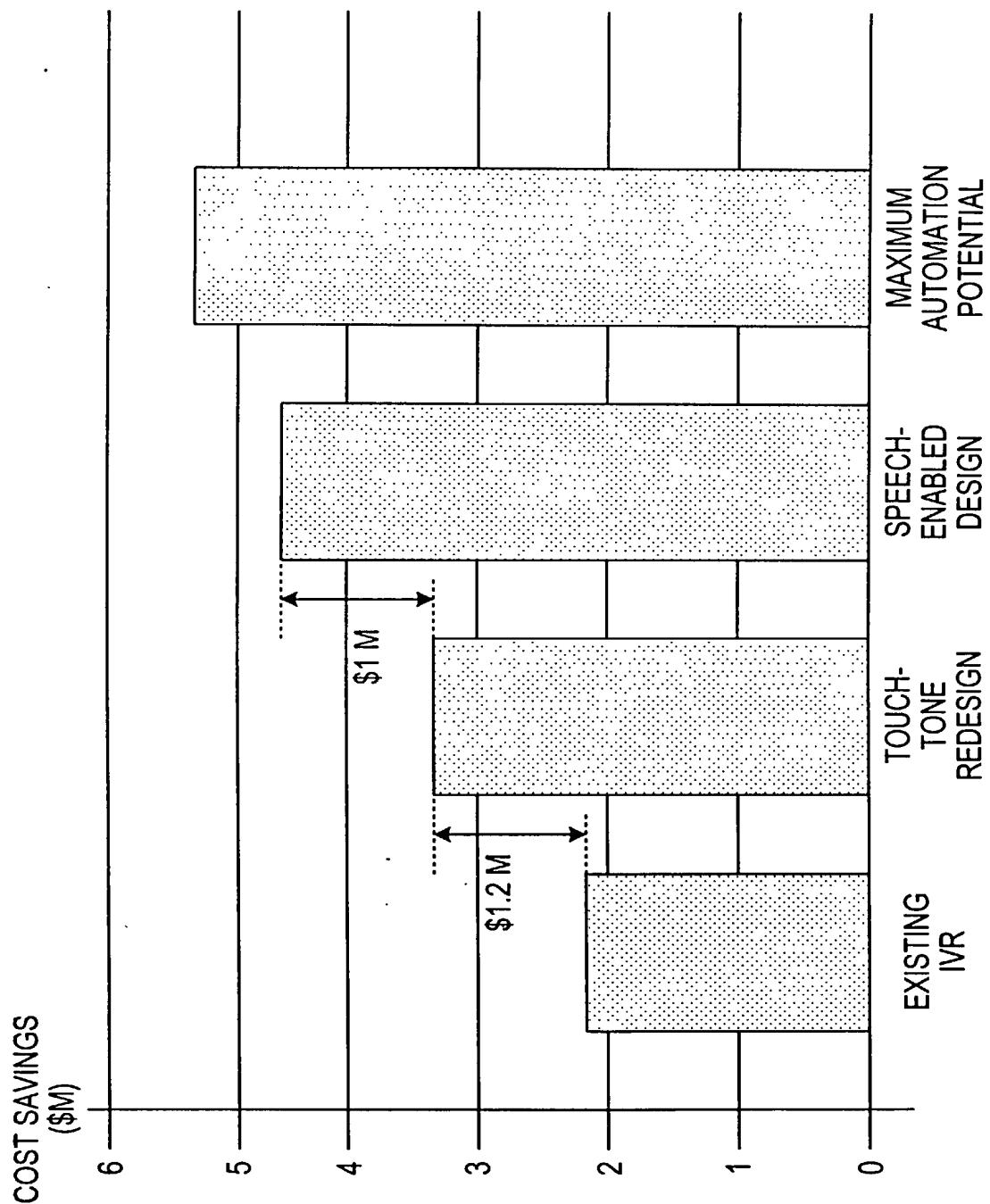


FIG. 19A

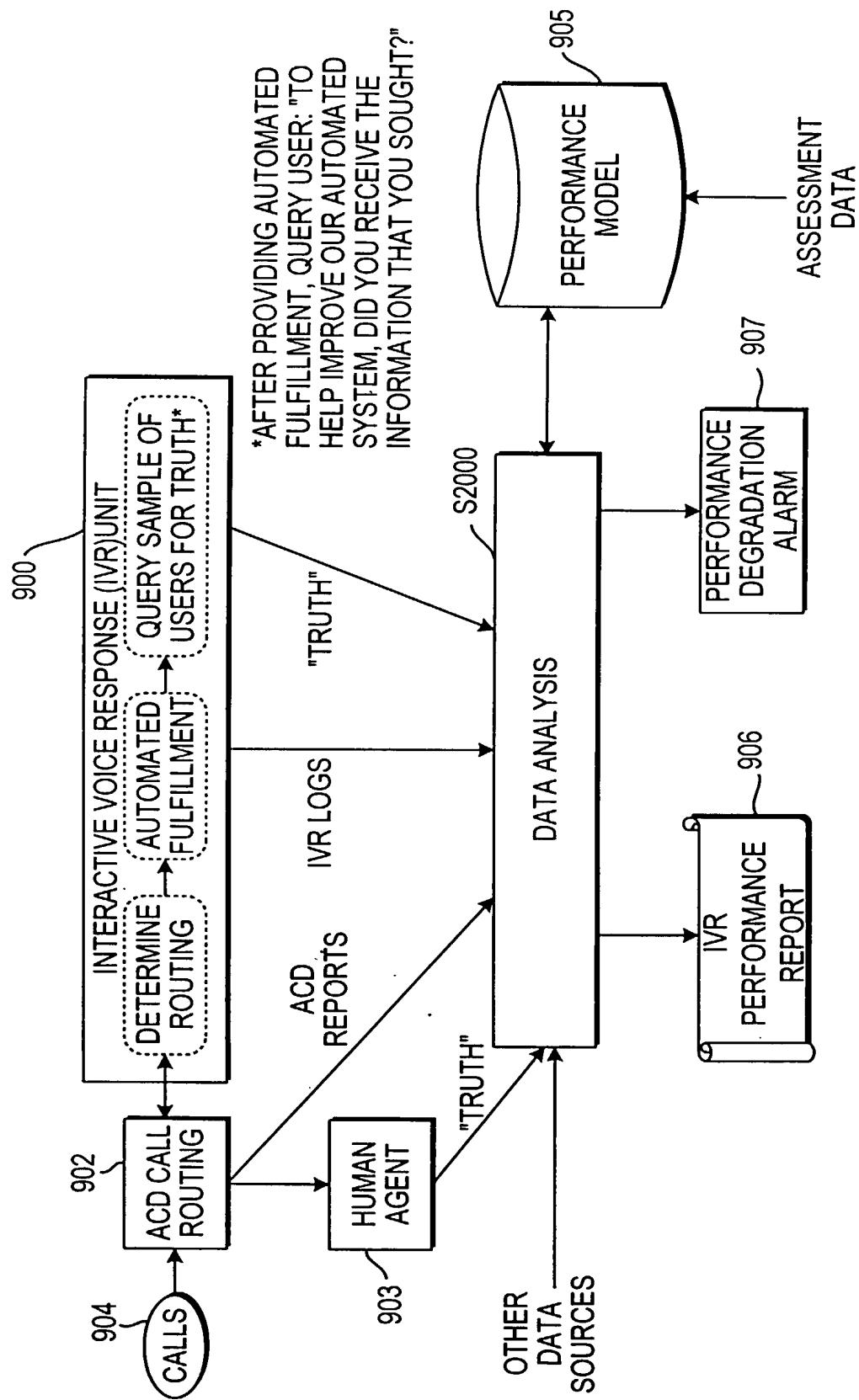


FIG. 20